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PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-FIFTH YEAR

Published Every Thursday by the

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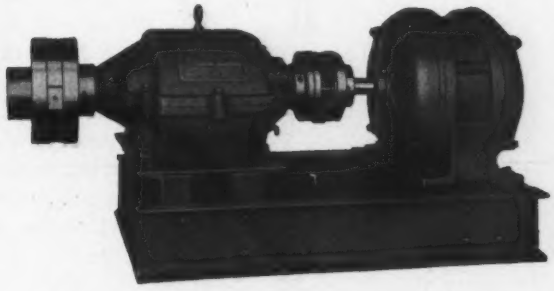

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With Which Is Combined

PAPER

The Magazine of the Paper Industry

Vol. LXXXIV, No. 19 — Thursday, May 12, 1927

International Paper Co. Starts Gatineau Mill

First Paper Machine of the Big New Plant Starts the Production of Paper on a Commercial Basis and Three Additional Machines Are to Begin Operation Within the Next Few Months—Machines Are the Largest in the World, Trimming 256 Inch and Operating Speed is 1,200 Feet Per Minute—Excellent Timber Supply

The first paper machine at the Gatineau mill of Canadian International Paper Company has begun production of paper on a commercial basis. The other three machines will begin production within the next few months. They are designed to produce a sheet of paper 256 inches wide; to run at a speed of 1,200 feet a minute. Each machine will have an ultimate capacity of 150 tons of paper a day. They are the largest machines in the world. The Canadian International Paper Company now has the distinction of owning the largest paper mill in the world—that at Three Rivers—with a capacity of 700 tons a day, and the largest paper machines in the world—those at Gatineau.

8000 Sq. Miles of Timber on Gatineau

The Gatineau mill is located in Quebec, on the Ottawa River, two miles below the mouth of the Gatineau River and only five miles from Ottawa. The company owns over 8,000 square miles of timber limits on the Gatineau River, all of the pulpwood being water driven to the mill. These limits contain, it is estimated, a perpetual supply of wood, not only for the present capacity, but for future extensions. While no extensions are now contemplated, the mill is laid out for additions which will be made when market conditions justify greater production.

Most Modern Type

The mill is of the most modern type of construction, and the machines are electrically driven, with direct drive. Electric power is obtained from the Chelsea and Farmers hydroelectric plants of Gatineau Power Company on the Gatineau River a few miles from the mill. At the present time, all steam is generated by electricity, but this power will be gradually withdrawn and coal used, as the Gatineau Power Company begins its deliveries to the Ontario Hydro-Electric Power Commission in 1928 and as other sales are made of the surplus power.

Government to Dredge Channel

The Dominion Government will dredge a channel this summer in front of the dock at the mill, which will permit water shipment to New York and other eastern points.

The company has built a few houses near the mill for some of the employees, but the major part of the labor will come from Hull.

The location of the mill is excellent. Its wood supply comes to the mill by water, with an island opposite the mill in the Ottawa forming a natural and safe holding ground for the wood; it is within seven miles of its power supply; is centrally located for shipment of its raw materials in and its paper out, with water shipment of paper possible seven months in the year; and has an abundant and excellent supply of labor.

Investment of Over $100,000,000

The Canadian International Paper Company, on completion of the Gatineau Mill, will have an investment of over $100,000,000. It owns, in addition to Gatineau and Three Rivers paper mills, the Kipawa and Hawkesbury bleached sulphite mills, and approximately 15,700 square miles of timber limits in the Province of Quebec.

The company recently announced the election to its board of such prominent Canadians as Hon. R. B. Bennett, K.C., of Calgary; Hon. Raoul Dandurand, K.C., P.C., LL.D., of Montreal; V. M. Drury of Montreal; Gordon C. Edwards, M.P., of Ottawa; J. H. Fortier of Quebec; Hon. Sir Lomer Gouin, K.C.M.G., LL.D., of Montreal; George H. Montgomery, K.C., of Montreal; J. M. McCarthy of Quebec; J. W. McConnell of Montreal; Hon. Donat Raymond of Montreal; Hon. W. D. Ross of Toronto; T. A. Russell of Toronto; F. N. Southam of Montreal; Hon. Smeaton White of Montreal; Brig.-General J. B. White, D.S.O., of Montreal; and E. R. Wood of Toronto.

Tumwater Paper Mills Name Officers

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., May 5, 1927.—Ralph L. Shepherd, secretary of the Tumwater Paper Mills Company, which is rushing to completion a plant at Tumwater, Wash., by remodeling the old brewery buildings, has announced some of the officials for the new mills, which will be among the largest in the northwest territory when completed.

P. J. Vernig, who has been assistant superintendent of the Oregon City paper mills for the past eight years, and who was connected with that company in various capacities for twenty years, has been appointed general superintendent of the new Tumwater plant. He assumed his duties May 1 and will immediately begin supervision of machinery installations, as the company hopes to have the mill operating some time in June.

Hoyt Wilson, who has also been with the Oregon City mills for many years, has been given the management of the programming and shipping department of the Tumwater plant.

Lewis W. Smith, who has had experience in paper mills at Salem, Oregon City and St. Helens, Ore., has been employed to look after the roll grinding and oiling of the paper.

The beating machinery is due early in May, and other shipments of equipment will follow at intervals of about two weeks, or as fast as installations can be made.

Demand for Paper "Spotty" in Philadelphia

Coarse Paper Market Fairly Active, With Wrapping Paper in Good Request—Fine Paper Business Quiet and Competition for Orders Lively—Mississippi Floods May Cause Southern Kraft Shortage—Col. Franklin Explains 1,000 Sheet Count

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., May 9, 1927.—While some dealers gave a gratifying account of sales since the opening of May others take the other side of the road. Most of the present activity is centered in the coarse paper market, where the usual seasonal market for some grades of specialties keep shippers busy. The tendency is to reduce prices in a few of the fine papers, but the wrapping paper division holds firmly to standardized values.

Fine Papers Selling Sparsely

There has been a dearth of volume orders in the fine paper group. Prices have been cut by a few Pennsylvania mills. No. 1 machine finish paper has been reduced to from 5½ to 5¾ cents within the last few days. Competitive bidding has been lively and it is this urgent seeking that has been responsible for the lagging of orders, as the larger buyers are prone to await further cuts in view of the present low quotations in the M. F. lines.

Wrapping Papers Hold Firmly

While the demand for wrapping papers is just now the mainstay of the coarse paper market, only a few dealers report a gratifying business, others holding to the opinion that seasonal shipments are not up to normal requirements. Though among some houses reports are most gratifying, there is noted the same tendency to hold requirements down to a minimum and to order only from day to day as needs develop.

Jute Papers May Be Cheaper

In all probability manufacturers of jute papers, or papers into which jute or rope enter as basic products, will in the near future be in a position to offer these products at reduced rates. That this is a foregone conclusion is due to the fact that importation of jute is increasing owing to the larger crops of the jute hemp in India. The present crops are the largest in years and eventually will work towards the lowering of price in American made papers into which this content enters. Already jute twines are being offered at from 1 to 2 cents per pound lower than they were in April, these prices being effective May 2. Among papers that no doubt will be lower are red rope.

Southern Kraft Prospects

Prospects for the coming months for the largely distributed Southern made krafts which are favorites in the local trade were outlined by travelers who have been in the flooded zones where these products are manufactured. Factory representatives from the southern mills within sight of the devastated districts report that it may be two months or more before the kraft mills in the flooded zone will be able to get out orders. One southern manufacturer predicts a shortage of 300 tons per day for the probable span of two months. With such conditions prevailing there is little to be looked for in price recessions.

Franklin Paper Company's New Product

While the Franklin Paper Company, 810 Sansom street, has been particularly active in development of new types of leather and leather substitute papers, another field of paper manufacture has been developed within recent months, and these new lines are now at the disposal of the local dealers. A short time ago the Franklin company took over the Prudential Paper Mills, at Lambertville, N. J., and after experimenting with new lines have perfected the grease proof papers now being distributed in sample form and orders to the Philadelphia dealers, who pronounce them excellent in quality. The new Franklin grease proof papers are good appearing and of high quality. They have all the appearance of parchments and although grease proof are not water proof as are parchments. They are adapted for wrapping food products.

Price & Pierce Representative Here

Extension in the manufacture of kraft papers produced at the southern mills of Price & Pierce, Ltd., is reported by the traveling representative of the manufacturers, William B. McGoldrick, who has been calling on local dealers. The Price & Pierce Company operates its own mills at Moss Point, in eastern Mississippi, 100 miles away from the flooded area. Kraft production at the mills has been greatly augmented, and there is now produced a machine glazed kraft which has been added to the regular lines.

Spring Grove Mills Improved

An enlarged plant has been provided for the P. H. Glatfelter Paper Mills, at Spring Grove, Pa., manufacturers of fine papers. The equipment has been augmented and the entire calender units have been replaced by very modern substitutes that will give greater production efficiency and provide for increased output. With the improvements the mills have been extended in building and machinery of the most modern designs. With the innovations, expansion in the production of book, varnish label, writing, bond, mimeograph, lithograph, drawing, egg shell, envelope, music, bulky book, offset, and other papers, will be facilitated.

Bids For State Paper Supplies

Bids for supplying paper to the State of Pennsylvania are now being received by B. E. Taylor, Department of Property and Supplies, at Harrisburg, Pa. The bids cover the paper requirements for the year ending May 31, 1928.

New Strathmore Papers

The newest of the Strathmore papers were offered to the Philadelphia trade within the week when Mill Representative Frederick May called on the dealers with the Cockatoo Line of bright colors in the newest shades. As he made the rounds of the various local dealers, the Paper House of Pennsylvania, Beck Paper Company, A. Hartung, Inc., and Raymond & McNutt, samples of the new products of the Strathmore Mills were left in booklet form.

Col. Franklin Elucidates 1,000 Sheet Count

With the turbulent times in the Philadelphia industry over the break into the accepted custom of counting on the 1,000 sheet basis in paper packing as adopted by the National Association and its Conference Board of trade associates, the talk of Colonel B. A. Franklin, vice president of the Strathmore Paper Company, and director of the Cover Paper Manufacturers Association, and a member of the American Conference Board, at the District Convention of the U. T. A. in Atlantic City last Saturday is of timely interest.

Col. Franklin opened his talk by asserting that with the increased popularity of mill brands and suggested resale prices—paper makers have been taking more active interest in the question of price at which paper is sold at retail, consequently, when the proposal to advance the penalty for broken packages was moved up from an original mill package to 1,000 sheets, or in the case of papers packed 100 sheets to the package to two mill packages, the manufacturers being vitally interested made a thorough study of the whole situation. After this study was made a number of alternative plans were suggested. The Writing and Cover Paper Manufacturers and the American Paper Conference Board

decided that the 1,000 sheet plan as adopted in January represented the best solution of the problem.

He told of the changes that have taken place in the general business of merchandising since the war—the principal feature of which is the growth of hand-to-mouth buying and consequent reduction in the size of the average order. Another feature peculiar to the paper business has been the multiplication of brands of paper. Today there are some thirteen hundred brands of bond paper alone, so that with so many different watermarks in demand, the printer could scarcely stock any particular one.

Efficiency experts, he said, have also brought the question of turnover so prominently before business men that this phase of merchandising has received more attention than other phases. A nation wide survey of the paper business reveals that 60 per cent of the number of orders passing through the average paper merchant's warehouse involves a sale of under $10. This growth has been in the face of an increased cost of doing business and a declining pound price of paper. The Survey Committee of the Merchants, feeling that some relief from the burden of these small orders was absolutely necessary, seized the opportunity to advance the quantity involved in a minimum sale with penalty presented by the adoption of the 1,000 sheet plan to one thousand sheets. The matter was proposed to the mills for their approval, and Colonel Franklin, speaking for the Strathmore Paper Company, stated that his mill would not change until they were absolutely convinced that some adjustment was necessary.

Colonel Franklin stated that he had personally made an exhaustive study of the situation, and with all due modesty, he could speak with some authority, as he is an industrial engineer of twenty-five years' experience and partner in one of the original firms of efficiency experts in America. He stated that through his studies, he found that the cost of handling an order averaging over seven thousand orders was $1.21 per order. The overhead, administration and selling expenses were not included in the above figure. The $1.21 represents the cost of detail work in entering an order and billing, keeping stock records, delivery, etc. This, of course, represents a considerable cent per pound charge—particularly on the cheaper papers when sold in small quantities. He stated also that the average order of 1,000 sheets consisted of many more orders for less than 500 than for 500 to 1,000 sheets—most of the orders averaging about ten pounds in weight.

In view of this situation, Col. Franklin said the manufacturers were convinced that many paper merchants were doing a considerable volume of business without what can be considered a satisfactory profit. Some relief is necessary, and he pointed out that there were three plans generally proposed. One is the old 25 per cent for broken packages, second 50 per cent for broken packages maintaining the old unit, and third, the 1,000 sheet plan. By chart Colonel Franklin showed that under the old plan the 25 per cent rose to as high as 15 cents per lb. on the high grade papers. On the 50 per cent plan it would rise as high as 30 cents per lb. for broken packages, whereas under the 1,000 sheet plan, the maximum broken package charge is 5 cents per lb. Colonel Franklin pointed out that while it is true that papers costing in the neighborhood of 7 cents would pay a larger cent per pound mark-up under the 1,000 sheet plan than under either of the percentage plans, these are usually purchased in quantities sufficient to avoid the broken package charge. On the other hand a large percentage of the orders for papers costing 20 cents per lb. and upwards were for less than a mill package, so that it was easily demonstrated that under the 1,000 sheet plan, the printer would actually buy his paper cheaper on most of his orders, than under either the old 25 per cent plan or the 50 per cent plan. The advantage to the paper merchants would be that the cost of breaking packages and handling small orders on cheaper papers, which is practically the same as on high grade paper, would be placed on the cheaper papers where the burden should be borne.

Colonel Franklin stated that all of the plans were based on the absolute necessity of the paper merchant for additional revenue. There are a great many statistics available gathered from all over the United States to show that this additional revenue is necessary. If the 1,000 sheet plan is abolished, it will inevitably result in an increase in the resale prices of paper. From manufacturers' viewpoint, he stated he thought that resale prices were high enough already, and that they would rather see the prices reduced, as it would mean increased volume. He assured the gathering of printers, however, that regardless of whether they like the 1,000 sheet plan or not, if they refused to accept it and opposed it to the point of breaking down the plan for the paper merchants, that they would have to face higher prices in the near future. He stated he thought the principal difficulty with the 1,000 sheet plan among the printers was its novelty.

Like all new things it meets with certain opposition, but he is certain in the long run, it will not hurt the printer, and that on orders for better grades of paper, it will actually reduce his cost.

Several printers during the discussion following, suggested that a service charge or a flat charge for a broken package whether accompanied by a full package or not, might be a more logical way of applying the expense of the small orders where it belongs, than the 1,000 sheet plan. To this Colonel Franklin replied that this plan had been tried in several mid-western cities about two years ago, and that because of the opposition from several directions, the plan finally had to be abandoned. He did not consider the 1,000 sheet plan perfect by any means, but that he and his colleagues among the manufacturers thought that it was a step in the right direction, and again repeated his assertion that if the 1,000 sheet plan did not stand, some other more drastic plan would be adopted.

Julius Weyl Extols New System

Julius Weyl, a prominent Philadelphia printer, cited the historic fact that when the point system of typesetting was adopted, many printers resented the change, and a situation existed similar to the present condition on the 1 M sheet count and weight. He stated that he was heartily in favor of the 1 M sheet count and weight, because he always sold by the 1 M sheets, and he was sure that it would mean the elimination of many errors in their estimating.

As a printer, Mr. Weyl thought that particularly bad judgment was used in coupling up the advance in prices with the change in the standards of count and weight, and later perhaps this matter could have been adjusted. After listening to Colonel Franklin's talk, he could see that just as it cost a printer as much to make ready for printing one copy as for one hundred thousand, so there must be in the paper merchants' business a certain minimum charge, below which orders would show a loss. He admitted that there must be a difference in price to cover the extra cost on small orders. He stated that after all it was a matter for the paper merchants to figure out what they must have and then adopt it and stick to it, eliminating the printer from consideration—for after all, he stated, it was a question of arithmetic and not fairness.

As far as the local situation in Philadelphia was concerned, he believed he could state for the larger printers that they wanted definite understanding with the paper merchants as to how paper was to be sold in the future. If there was to be a mark-up, the printers wanted the paper dealers to decide on the mark-up and then all adhere strictly to it. Their principal worry was not so much as to what the paper was costing them, as to know whether they were buying at the same prices and same terms as competing printers. He expressed deep regret that in every community there were a few smart Alecks who thought by not doing what the majority of the members of their trade found fair and necessary for a time, they could get more than their share of the business and profit by their independence. In the case of the Philadelphia situation, it is the old story of one rotten apple spoiling the whole barrel. In the face of the Philadelphia situation, he supposed that the printers would all buy their papers where they could buy them at the very lowest possible prices.

Toronto Paper Business Fairly Satisfactory

While Converters Report Lighter Demand, Glassine and Greaseproof Papers Are in Better Request—Considerable Quantities of Printing Paper Shipped to the Antipodes—Thousand Sheet Count Plan to Begin Shortly

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., May 9, 1927.—Business in the paper line is moving along in fair volume and it is expected that May will round out as a very good month. There has been prepared by the Canadian Paper Trade Association, the Canadian Pulp and Paper Association, and the Sixteenth District Typothetae Association, a manual, which has been sent out to customers, on counts, weights and sizes in connection with the simplification and standardization of printing papers. The booklet explains the details of the thousand sheet count, which is the basis on which paper will be sold in Toronto and throughout the province of Ontario, starting on June 1 next. One central thought has been kept in mind by the associations, and that is, how can simplification and standardization of printing papers be made to eliminate wastes and thus serve the best users of paper in Canada. Manufacturers, merchants and printers and all other users are urged to study the new manual so as to be familiar with the facts set forth.

In glassine and greaseproof papers things are going very well in the trade but paper converters report a falling off in demand of late. Business was good in April, but in the loose leaf and other lines, there has of late been a decline. In the light weight wrappings and tissue paper sections, considerable price cutting has prevailed in order to meet foreign competition. Canadian mills are doing the best they can to stabilize values and conditions, with a fair measure of success, by up-to-date methods of manufacturing and merchandizing.

The export trade in paper is keeping up well and the Provincial Paper Mills Company, from its Port Arthur plant, has been shipping considerable quantities to New Zealand and Australia in ground wood printing paper. So far as pulp is concerned, the market is very fair and ground wood is selling at from $30 to $31 at the mill, bleached sulphite around $80 and unbleached from $60 to $65 a ton. There is reported a water shortage in the northern part of the province, which may lead to a scarcity of ground wood. There are no large stocks of pulp on hand either with producers or consumers and buying, on the part of the mills, is carried on according to requirements.

Great Lakes Co. Will Build Mill

It is understood that the Great Lakes Paper Company will erect a news print mill at Fort William and a fresh agreement will be entered into between the Ontario government and the company, who own the Pic, Black River and Long Lac pulp wood limits, comprising over six thousand square miles. While the new price has not been fixed for pulpwood it learned that it will not be less than $2.05 per cord. Terms regarding the construction of the news print mill will also be changed, according to a recent announcement of Premier Ferguson, under the new contract which is being prepared. It appears that some time ago, E. W. Backus was brought into the Great Lakes Company, acquiring forty per cent of the stock, the remaining sixty per cent being owned by Messrs. Alstead and Seaman. It is reported that A. R. Graustein, president of the Canadian International Paper Company, lately purchased the stock of Messrs. Alstead and Seaman, but previous to this, disputes arose between Messrs. Backus and Alstead regarding the control of the company, who were unable to agree. It is now asserted that all troubles have been ironed out and that construction will go ahead. The details will be announced in the near future.

Provincial Paper Mills Sales

The recent sale of the Provincial Paper Mills plants and limits in Ontario to the Dominion Securities Corporation, Toronto, has been opposed by Walter E. Booth and other shareholders, who applied to the courts in Toronto for an interim injunction to prevent the transfer from being concluded. The application was made in the allegation that extra blocks of shares in the new company were given in the sale, to the directors and not to the other shareholders.

The hearing of the application for an interim injunction restraining the Provincial company from disposing of its assets has been postponed and the sale is practically completed. In an affidavit replying to the allegations, S. B. Munroe, of Kalamazoo, Mich., the largest individual owner of the common stock, states that the price was acceptable to him and, in his opinion, is the full value of the stock and higher than the market quotation for it up to the time of the offer.

Continuing, Mr. Munroe says "there is not and never was any arrangement, understanding, promise or agreement of any kind whatever, whereby I, or any other holder of common stock of the company, directly or indirectly, received, or obtained in any way, any additional payment, benefit, advantage or consideration, either by way of purchase price, bonus, gift, commission or in any other manner in connection with the sale or transfer of shares of stock." Similar affidavits were made by other officers of the company.

Mr. Munroe points out that he is informed that I. H. Weldon and S. F. Duncan, as well as other employes, will remain with the new ownership and that, in this connection, it was contemplated by Dominion Securities Corporation that some arrangement might be made whereby, in consideration of future service, they could purchase some shares with no par value in the new company. Mr. Munroe added that he had no interest or concern in that and it had no part in the transaction.

The deal made necessary cash funds of approximately $3,300,000 to retire bonds and preference stock. Mr. Munroe also declares that great confusion and probable loss to the shareholders would arise if the offer was not carried out.

Removing to New Premises

The Canada Paper Company, which for many years has had its Toronto warehouse at 290 Bay street, is removing to the Minister-Myles Building at the corner of Pearl and Simcoe streets, where it will have much larger and well located quarters. The building, which the company is vacating, is being torn down to make room for the construction of a large garage.

Notes and Jottings of the Trade

George C. Winlow, sales manager of the Lincoln Pulp and Paper Mills, Toronto, spent a few days recently at his summer home near Midland, Ont., getting it ready for the season.

W. H. Hartford, of Cochrane, Ont., manager of the northern pulp wood operations of the Thompson and Heyland Company, spent a few days in Toronto lately. The company has shipped out since the first of the year about 2500 cars of pulp wood to points in southern Ontario and the states of Pennsylvania and New York.

Harold Crabtree, of Montreal, managing director of the Howard Smith Paper Mills, spent a few days in Tomonto last week.

W. J. Meridew, of the sales staff of the Charles V. Syrett Paper Company, Toronto, has been elected president of the Anglican Lay Readers' Association, of Toronto.

T. J. Mansell, veteran paper salesman of the Howard Smith Paper Mills, Toronto, left this week for England on a three

months' trip to the Old Country, which he has not visited for fifty years. Mr. Mansell, now in his eightieth year, is enjoying good health.

The Canadian Cellulose plant at Cornwall, which has been in construction for some time, is now operating and has got off to a good start. The new straw board mill of the Hinde and Dauch Paper Company, at Trenton, Ont., which has been completed, started this week and will have an output of 50 tons a day.

The Lynch Timber Company, of Sault Ste Marie, Mich., has put in a portable mill at Michipicton Harbor, Ont., to cut the soft timber that is non-exportable. The tract of land, which the company has acquired, is principally wooded with pulp wood and the operation will be largely confined to this item.

"Vasette," a specially treated cardboard container, which is manufactured by the Canadian Seabright Company, Peterboro, and has just been put on the market, is now being handled by the Canadian wholesale paper trade.

George Carruthers, former president of the Canadian Pulp and Paper Association, Toronto, and other paper representatives, were in Ottawa lately interviewing the Minister of Trade and Commerce in reference to the appointment of a competent official in the industry, with an expert knowledge of values, so as to give a proper estimate of the foreign paper imports into Canada.

Maurice O'Meara Co. Successors Organize

The assets of the Maurice O'Meara Company, one of the oldest firms of paper merchants in this country which recently passed through equity proceedings, have been purchased by the Walker-Goulard Plehn Company, Inc., an organization composed of individuals who for many years were salesmen of the old firm. The new company has acquired the lease, good will, fixtures and inventory of the Maurice O'Meara Company, as well as the exclusive right to trade as successors to this company. The new firm is now established in their old quarters and report that the business they have so far booked has far exceeded their expectations.

The financial troubles of the Maurice O'Meara Company resulted from causes not identified with the usual run of business risks, and the new organization of the former concern has fully recovered the lost ground intervening between the receivership proceedings and their purchase of the assets of the old company. The new firm intends to carry a full and complete line of coarse and fine papers, and to specialize in standard mill brands.

The personnel of the new organization is composed of Thomas Goulard, its president, who had been for 22 years associated with the old company as manager of the wall paper and specialties department; Elwin Walker, the treasurer, had been with the old firm for 21 years, devoting his time most largely to their export business; Robert Plehn, the vice-president, was associated with the previous firm for 21 years, specializing in boards, coarse papers and specialties; and Gustave Schneider, Jr., the secretary, who served the interests of the old firm for over ten years, devoting his efforts to fine papers. The members of the new firm are well known throughout the pulp and paper industries and their many years of experience in buying and selling in the world's markets should qualify them for a very successful future.

To Start Work on Grays Harbor Pulp Mill

PORTLAND, Ore., May 5, 1927.—The Grays Harbor Pulp and Paper Company, a corporation organized by the Zellerbach interests to operate in the vicinity of Hoquiam, Wash., will start at once on the first unit of the proposed new mill project for the site at the mouth of the Hoquiam River. Bids for pile driving were called May 1, and work will be under way as soon as the site is cleared, which will probably be a month later.

The first unit of the plant, as previously announced, will be a pulp mill of about 130 tons daily capacity, planned to operate principally on hemlock waste from the Harbor lumber mills. This first unit will probably be in operation by next January.

Connecticut Cost Division Meets

The Connecticut Valley Division of the Cost Association of the Paper Industry met at the Hotel Kimball, Springfield, Mass., on April 12, when Joseph H. Barber, Assistant to the President of the Walworth Company gave a very interesting address on "Stability vs. Guesswork."

The interest developed was indicated by the numerous questions asked Mr. Barber at the close of the address, which he answered to everybody's satisfaction.

Besides being assistant to the president, Mr. Barber is chief statistician to the Walworth Company of Boston, and he showed how statistical control gets sales-production balance for ten-a-year items and 1,000,000-a-year items. Mr. Barber reminded his hearers of the old prejudice against statistics, everybody stating his business was different, and that it was impossible to know what was going to happen—it being generally thought that the only way to keep out of trouble was to change policies quickly when conditions changed, instead of endeavoring to foresee what those conditions would be in the future, and endeavoring to make satisfactory arrangements to meet them.

The Walworth Company has developed the "Valve and Fittings Index." Eleven indicators measure the volume of ordering or contracting in industries which use valves and fittings, while five show the actual orders on representative producers of products associated with the valves and fittings line. Mr. Walworth next showed how the Index could be interpreted to gain a practical conclusion.

In spite of a greatly varying demand, the Walworth Company bases its production on the trend, which is worked out graphically, and is based on the year's moving average of the monthly postings, in the Index.

Paper, like plumbing, depends on population. If the last named increases, so do the use of paper and plumbing; if the Walworth Company finds it worth while to spend thousands of dollars a year to obtain statistical information to guide them in its business, it is undoubtedly well worth while for the pulp and paper industry to spend many thousands of dollars yearly, in developing reliable and accurate statistics.

The next meeting of the Connecticut Valley Division will be held at the Strathmore Inn, Woronoco, Mass., on Tuesday evening, May 10, at 6:30 P.M. Gerald A. Torrence, treasurer of the Eastern Dairies, Inc., will speak on "Management's Efficiency Decathlon."

The meeting at the Strathmore is a yearly feature of the Connecticut Valley Division's meetings, and those who have pleasant memories of the palatable dinners served there in the past, are again invited to attend this meeting. As a large number is expected, reservations should be forwarded as early as possible to Joseph E. Barrett, secretary of the Connecticut Valley Division of the Cost Association of the Paper Industry, American Writing Paper Company, Holyoke, Mass.

Diana Company May Reorganize May 12

WATERTOWN, N. Y., May 9, 1927.—With the meeting of creditors of the Diana Paper Company, of Harrisville, set for May 3, postponed until May 12, it is expected a new plan for reorganization of the company will be presented which will meet with satisfaction.

During the past week there were a number of meetings of parties interested with John O'Connell, president of the Diana Company, and they have been working out a plan of reorganization. It was at the request of these parties that the May 3 meeting was postponed because the plans had not matured to such an extent that the full plan could be given to the creditors on that date.

During the week other meetings are scheduled and it is believed the O'Connell plan will mean resumption of operations at the Harrisville mill and be the best solution for the creditors of the company.

News Print Production Falling Off in Canada

Price Bros. & Co. Annual Statement Shows Decreased Output During Past Few Months—Construction of Anglo-Canadian Pulp and Paper Mills Progressing—First Two Machines May Begin Operation in December and Other Two in June Next Year

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., May 9, 1927.—Following the issue of Price Bros. & Co.'s annual statement, showing a falling off in the production of news print during the past few months, those interested in the industry here are looking forward to the forthcoming statements of other large companies. The fiscal year of the Spanish River and Laurentide companies ends in June. The figures will not be available until early in August, but it is said that they will show a full production for seven months and an 85 per cent production for five months. O'Brien and Williams, members of the Montreal Stock Exchange, in making this statement, remark in their Market Letter: "The results will hardly be satisfactory. We find most news print insiders ready to face a considerable readjustment in the business and not hopeful that the situation will rectify itself for some time. Many are now of the opinion that if prices can be reasonably maintained and an 85 per cent run kept up they will be lucky if it is no worse. The great question is: Can dividends be earned under those conditions? There has been less merger talk heard lately, in fact the new selling agreement just made may make mergers unnecessary in view of the fact that the leading concerns will all be rowing in the same boat."

The Anglo-Canadian Co.'s Mills

Owing to the fact that its capital has been wholly subscribed in England, and that English publishing houses will be its principal customers, little detail has hitherto been obtainable here regarding the gigantic news print manufacturing enterprise which is being established at Quebec by the Anglo-Canadian Pulp and Paper Mills, whose plant will cost $20,000,000. Interest therefore attaches to the statement on the subject made at the annual meeting of the *Daily Mirror* newspapers in London, by Frank W. Clarke, vice-president of the Anglo-Canadian Company. He gave an outline of the progress achieved, and stated that two machines would be operating in November. He said in part:

"In August work was started on the construction of the plant. The site, which is a very favorable one, situated in the heart of the city of Quebec, is on tidewater, and in order to enjoy the full benefit of its location the company is building 1,400 feet of deep-water wharf, where the largest ocean vessels entering the St. Lawrence River can berth. The advantages of this site to anyone familiar with paper mill operations are quite obvious. We have not only the advantages of ocean transportation for our product and raw material, such as pulpwood, coal, sulphur, etc., but also of inland water transportation and a connection with both of the large Canadian railways, the Canadian Pacific and Canadian National.

"Quebec is regarded as one of the best labor centers in Canada, and the advantage of our location in this respect will undoubtedly reflect itself in the balance-sheet when the company starts operating.

"The design of the mill itself has had the most careful consideration, and I have no hesitation in saying that it will be regarded as one of the most efficient and up-to-date paper mill plants in the world. The construction work on the mill itself was started in November last, and the progress of the work, in spite of the fact that we had to contend with Canadian winter weather conditions, has been very satisfactory.

"Unless unforeseen delays occur over which we have no control, we have every expectation of having the first two paper machines in operation in December this year. As soon as the first two machines are working we shall immediately commence the installation of the two other machines and hope to have them ready for operation by June of next year. When the four machines are running the mill will have a capacity of at least 110,000 English tons yearly.

"As regards our supply of raw material—that is, pulp wood—we are very well pleased. Our acquisition of the Montmorency Limits, containing over 2½ million cords of pulp wood, enables us to secure a large proportion of our wood at a comparatively short distance from the mill at a cost delivered to the mill plant which compares very favorably with other big mills now in operation. In addition to this, we have, of course, over eight million cords of wood on the Manicouaggan River, which is a very valuable additional supply. The 10½ million cords of wood represent, roughly, 8,000,000 tons of news print paper.

"We have been very fortunate in securing the services of R. A. McInnis as general manager of the company. Mr. McInnis is regarded as one of the ablest paper mill operators in Canada, and we are already benefiting very materially by his collaboration with George F. Hardy, our consulting engineer, in the design of the mill.

"I might add that while there are indications of some overproduction of news print in America, I have every reason to believe that the situation is well in hand, and while for the next two years and during the start-up of our plant we must expect to go through the usual difficulties which any new enterprise must face in getting under way, I believe that these difficulties, by foresight, will be reduced to a minimum. I also believe you will find when our mill is in full operation that it will compare favorably in profits per ton of output with any of the large paper mills of similar size in Canada or the United States."

Western Canada Co.'s Assets Sold

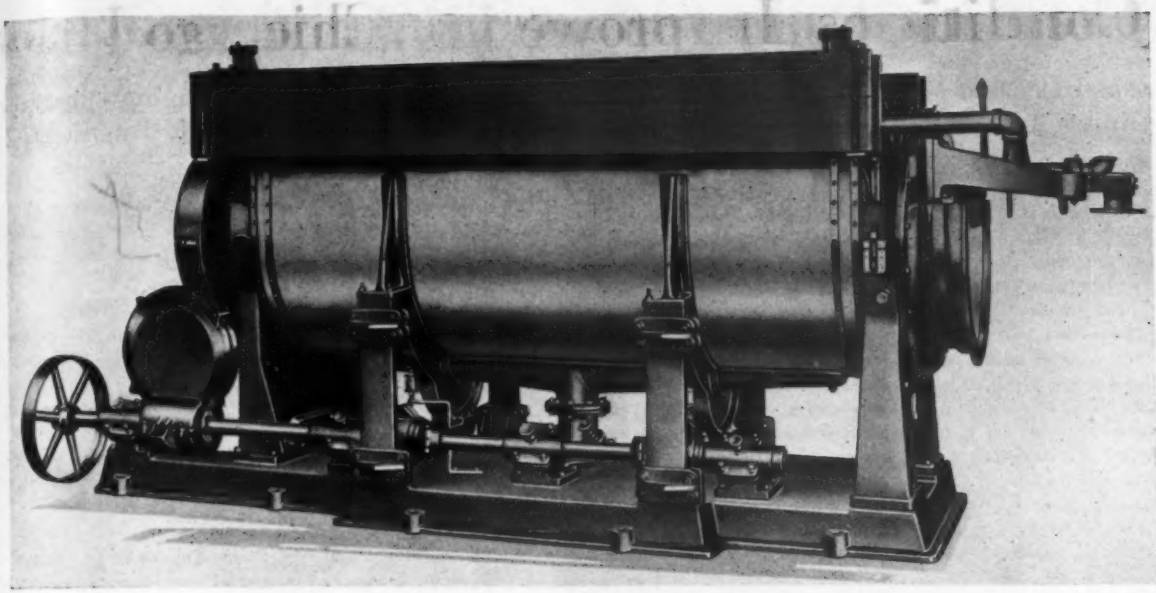
The assets of the Western Canada Pulp and Paper Company at Howe Sound, B. C., have been sold to Everly Davis, of New York, for $450,000, the sale being made by the liquidators of the Howe Bank, which, it is stated, carried these assets on its books for $2,000,000. The timber limits, comprising 19,000 acres at Port McNeil, on Vancouver Island, were sold for $350,000, and the pulp mill for $100,000.

New Working Schedule at Hudson River Mills

CORINTH, N. Y., May 9, 1927.—The International Paper Company last week put into effect a new working schedule to apply to the Hudson River Mill and the Curtis Pulp Mill. The new schedule calls for a five day working week, which, it is understood, will be continued during the summer months. Under the new plan forty hours will constitute a week's work in the papermaking and pulp departments as well as subsidiary branches of the mill. News print production will be cut down approximately twelve and one-half per cent by the change, it is said. The ten paper machines will be started up at 3 o'clock Monday afternoon instead of 7 o'clock Monday morning as under the old schedule and operations will be halted at 3 o'clock Saturday afternoon of each week.

Construction work is now under way on the addition to the Hudson River Mill, ground having been broken last week. The new building will be used for grinding the news print rolls as they come from the machines.

The I. P. Co. is also making quite extensive repairs to the buildings comprising the plant at South Glens Falls. Joseph Coflinger, master mechanic of the Hudson River Mill, has been transferred to South Glens Falls to supervise these repairs.



Two thirds of all the paper made in North America passes through BIRD SCREENS

BIRD MACHINE COMPANY
South Walpole
Massachusetts

BIRD MACHINERY

893

Conditions Improve in Chicago Paper Market

Seasonal Demand Experienced for Better Grades of Fine Paper—Kraft Wrapping Paper Continues Active, With Quotations Firm—Production Not Affected Materially By Mississippi River Floods—News Print Situation Unchanged

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., May 9, 1927.—Chicago paper men are finding the first week in May a little more favorable as far as business conditions are concerned. Here and there certain items are beginning to pick up while the market in general is continuing to stand firm. No price variations of any importance were noticed.

Sulphite bond is still in a rather weakened condition while the majority of the fine paper grades remained quiet. The better grades of fine paper experienced the seasonal demand for stationary trade, social stocks, etc., for coming graduation days and June weddings. Kraft wrapping paper is firm and continues to be fairly active. News print, book and cover papers continue to hold relatively the same positions as last week, firm, but without any exceptional demand. As far as Chicago is concerned the mills are still able to supply almost every grade of product as soon as it is demanded, signifying a lack of stimulated buying in the paper field.

Speculation is rife over the effects of the Mississippi floods on the southern kraft markets. This speculation can best be settled by reference to the opinion of one of the leading southern kraft representatives in Chicago. This jobber declared that the flood would not be of sufficient duration to bring about any effect whatsoever on prices.

Two mills in the flooded districts have been in the path of the Mississippi overflow. The remainder of the mills continue to operate and have a sufficient supply of pulp on hand. The difficulty is, however, in shipping the kraft out of the district. Wires were sent into Chicago early May 6 informing Chicago kraft dealers that a freight embargo was in effect and that it would be impossible to supply them with kraft. This information was completely nullified later by another wire which stated that the embargo would not go into effect because it would be possible to ship through points east of the flooded district and then on to the North. Thus, in the final analysis, it seems probable that the kraft situation will remain firm with the chances of a freight embargo growing more remote each day. Production is reported as being unaffected to any great extent by the catastrophe.

Import Organization in New Quarters

That the Chicago paper market is shifting its center from the territory just outside the south boundary of the loop to points across the Chicago river seems to be further in evidence with the moving of the Import Paper Company from their location on South Wabash to 740 West Adams street. This move follows a six year stay on the Wabash location and indicates the trend toward the other banks of the river where already a large number of printers and paper retailers and jobbers have congregated.

The Import Paper Company moved the first of May. Their new location, which provides both office and warehouse, furnishes the company with about 10,000 square feet of additional floor space. A full line of bonds, ledgers, print papers and other items of a well rounded out general line will be carried. This line represents one of the largest open stocks in the city.

New Rust Proof Product

The Chicago offices of the Kalamazoo Vegetable Parchment Company, under the supervision of J. F. Eaton, reports continued success with a new product known as No-ox-id, a paper chemically treated to be absolutely rust-proof. The chemical is made by the Dearborn Chemical Products Company and is applied on paper with the aforementioned result. Kraft or sulphite is usually the paper so treated and it is proving very useful to auto part manufacturers and kindred lines. By use of No-ox-id it is said that all parts so wrapped are entirely free from any danger of rust. No-ox-id treated papers are said to be free from absorption and will not cause any change of the material used for coating or slushing bright metals.

Cherry River Co. Opens Chicago Office

The Cherry River Paper Company, Richwood, West Virginia, makers of bleached and unbleached sulphite papers, has opened a Chicago office at room 1762 Conway Building. The company is well known in Chicago territory and the new Chicago office is expected to operate in a very satisfactory fashion. Taylor D. Ward, with the Cherry River Paper Company since March 1, will have charge of western sales. Mr. Ward was connected with the Allen Paper Corporation, jobbers of a general line, for the ten years prior to his new connection.

Eddy Paper Co. Plans Expansion

Of general interest to the entire paper trade is the news that the Eddy Paper Company is contemplating the acquisition of the Kieckhefer Container Company of Milwaukee. Stockholders of the Eddy Paper Company will vote on May 10 on a proposal to increase the capital stock from 125,000 to 165,000 shares, the new stock to be offered at $30 a share and to be used to purchase the Kieckhefer company. The purchase price is reported as around $1,200,000. George Seaman, of the Seaman Paper Company, is president of the Eddy Paper Company.

Paper Board Men to Meet

The Paperboard Industries Association will hold its next meeting at the Congress Hotel, Chicago, May 18 and 19. A meeting of the Paperboard group will be held in the forenoon of the first day and of the Golding Box group in the afternoon. The Container Group meeting will be held on Thursday morning and the general meeting of all three groups will be held Thursday afternoon. The efforts of the Paperboard Industries Association to cooperate with the U. S. Department of Commerce in the matter of box board thicknesses will probably take up a part of the discussion.

News of the Industry

The Pilcher-Hamilton Company is making a special effort to introduce "Fluffpac," a cellulose fiber product, to the general trade. It is said to be execellent material for merchandise packing due to its extreme softness and lightness. Used to pack perishable goods and articles that are likely to scuff and scar, it is reported as the peer of any like product on the market.

W. S. Talbott of the Warren Manufacturing Company, Chicago office, returned May 5 from a week's visit at the head office of the Warren Manufacturing Company in New York and the mills in New Jersey. Mr. Talbott came with the Warren company in February and was thus getting his first insight into the methods used by his mills in making their line of glassine papers, bristols, etc. He was formerly Chicago district manager for the Reyburn Manufacturing Company, Philadelphia, makers of tags and paper specialties.

Maurice Peck, vice-president of the Hanchett Paper Company, well known Chicago wrapping paper merchants, is the proud father of a daughter, Carrie Bernice, born last April 26. Both mother and baby are coming along fine.

Noble Gillett, of the Chicago Paper Company, vice-president of the National Paper Trade Association, left May 3 to attend the annual meeting of the Pacific States Paper Trade Association to be held at Del Monte, starting the 10th of this month. Mr.

(*Continued on page 26*)

KENWOOD

WOOL PRODUCTS

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PAPER and PULP MILLS
in the United States and Canada are daily demonstrating the fact that—

The Kenwood Mark on a Papermaker's Felt or Jacket is assurance that it is the Best for its purpose that can be produced anywhere in the world.

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Demand for Paper Fairly Good in Boston

Some Reports of Dullness in Fine Paper Division—No Signs of Weakness Exhibited in Other Sections—Box Board Mills Mostly Well Booked Ahead—Waste Paper Market Practically Unchanged Since Last Week

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., May 9, 1927.—Fairly steady is the average condition of the paper market here. Alterations have taken place in the situation during the week. Prices are unquotably changed, although in some instances it is understood that mills are accepting orders at figures lower than those listed. Reports of dullness in the fine paper trade are heard. In other quarters of the market, members of the trade see no signs of weakness.

The volume of business in box board continues about the same as for the last month. Mills are receiving orders for about as much tonnage as they can manufacture in a five-days-a-week schedule. Some manufacturers in the Eastern states and in New Jersey are operating only four days a week. Mills in Haverhill are understood to have orders four weeks ahead. The demand for folding board seems to be somewhat more satisfactory than that for the grades for set-up boxes. In some quarters of the market, paper box dealers are receiving large orders, consumers are buying from hand to mouth, but want quick shipments. Considerable demand is in evidence for card-board with which to make card-tables.

In waste paper the market remains practically the same, fairly firm, with no change in prices. The market for rags apparently has a brighter outlook. Prices are maintained at the same levels.

New England Paper Merchants to Meet

Secretary Floyd H. Blackman, of the New England Paper Merchants Association, has sent out the final notices of the gathering at Hotel Bond, Hartford, Conn., May 11 and 12, "the biggest meeting of paper merchants ever held in New England." The speakers at the dinner and meeting May 11 at 7:30 p. m. are: C. A. Esty, president of the New England Paper Merchants Association; J. C. Mallalieu, president of the National Paper Trade Association; A. H. Chamberlain, secretary of the National Paper Trade Association. The meeting at 9:30 p. m. is divided into two groups, one for those interested in fine papers and the other for those in the wrapping paper and twine trade. The Farmington Country Club, Farmington, Conn., is the mecca of all on May 12, where from 9 to 9:30 a. m., will be held a handicap golf tournament of 18 holes, with medal play and prizes. The get-together and informal discussion will take place from 10 to 12 a. m. and the luncheon at 1 p. m.

Storrs & Bement Moving

The Storrs & Bement Company, 140-150 Federal street, Boston, Mass., one of the leading paper merchants of New England, and distributors of paper for more than three-quarters of a century, have taken a long term lease of nearly 70,000 square feet of floor space in the building at 278-288 Congress street, Boston, now occupied by the American Soda Fountain Company, and owned by the Boston Real Estate Trust. This building is one of the largest and strongest in the wholesale section of Boston, some of the floors having a carrying capacity of 285 pounds per square foot. The new location will provide for much needed room for larger offices and warehouse space to take care of the constant growth of this old established house which has forged ahead so rapidly in recent years.

The new location is only about three minutes from the South Station and outside of the congested retail district. The change from Federal street to Congress street, is due to the fact that the former location has gradually become transformed from a wholesale to a retail and banking thoroughfare.

In connection with its new lease, the Storrs & Bement Company announce that they have disposed of their present lease to the entire building 138 to 150 Federal street, containing floor space of 65,604 square feet to parties who plan extensive changes in the building in conformity with the new character of its location.

The Storrs & Bement Company hope to be located in their new quarters shortly after January 1, 1928, when extensive alterations and repairs to their new quarters will have been made to meet the needs of a modern paper house. They plan to install steel shelving, monorail service and many other modern devices for the prompt and economical wholesale distribution of paper.

CHICAGO MARKET IMPROVES

(*Continued from page 24*)

Gillette will be gone about three weeks according to reports from his office. He and N. A. Schoenbucher, secretary of the Wrapping Paper Division, will be the only Chicagoans on hand, unless some of the Chicago paper men now in California take time off to go to Del Monte.

P. D. Swigart, president of the Swigart Paper Company, is taking an active interest in banking and is one of the founders of the Congress Trust and Savings Bank of Chicago, a new bank which opened April 28. It is located near the Stevens Hotel, newly opened as the largest hostelry in the world.

J. B. Jones, of the Western Newspaper Union of Omaha, visited in Chicago the first part of the week. He was just in time to catch a parting glimpse of Bob Butterworth, Chicago representative of the Champion Coated Paper Company, who left Thursday morning for his vacation which he will spend at Asheville, North Carolina.

No other event has proven so startling or tragic to Chicago paper dealers as the news of the death of L. E. Nash, former sales manager and vice-president of the Nekoosa-Edwards Paper Company, Port Edwards, Wisconsin. Mr. Nash was widely known in Chicago and the deep sorrow evidenced by his death on April 28 was evidence of the popularity and esteem with which he was held in this city.

Moser Bag & Paper Co. Formed

[FROM OUR REGULAR CORRESPONDENT]

CLEVELAND, Ohio, May 9, 1927.—Manufacture of paper bags in Cleveland will be resumed after two years by a new company known as the Moser Bag and Paper Company, with $100,000 capital. A building has been secured at Cedar avenue and Ashland road and production will begin June 1.

William E. Moser is president of the new company. He was for 12 years executive secretary of the Grocery Bag Manufacturers' Service Bureau, a national organization with headquarters in New York and prior to that was sales manager in Cleveland for the paper and paper bag division of the Cleveland-Akron Bag Company.

W. E. Shuttleworth of W. E. Shuttleworth & Co., paper bag manufacturers of New York, is vice president of the new Cleveland company, and W. L. Droege of Cleveland is secretary.

Mr. Shuttleworth has been in the paper bag business 40 years and Mr. Moser 30.

The Moser company announces that in addition to paper bags of all sorts it will produce egg boxes, gum tape, glassine bags and a diversified line of paper sacks both for utility and novelty purposes. The firm will cater to the grocery, laundry, notion and millinery trade.

Paying For Waste Heat; Penalized in Competition.

Keen competition in the paper industry will make conditions increasingly difficult for the mill that permits waste and inefficiency to prevail in the operation of its machine room.

Briner Economizer

Licensed Under Patents of E.A. Briner and John E. Alexander

are today recognized by leading paper mill managers throughout the industry as an absolute necessity to curb the hidden waste of steam that proves so costly. Through their proven effectiveness in reclaiming the heat from waste vapor, Briner Economizers actually pay for themselves in a comparatively short time and continue to cut costs and increase profits long after.

What will be the conditions in your mill next winter. Consult our engineers now.

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Paper Demand In Los Angeles Below Normal

Fundamental Conditions, However, Are Satisfactory and 1927 Is Expected to Average Up Well in Spite of the Present Rather Slow Demand—Conventions of the Paper Dealers and Box Manufacturers Are Expected To Be Large, Representative Gatherings

LOS ANGELES, Cal., May 5, 1927.—The volume of trade in the paper industry still is below the normal for this season of the year. Just why this is so no one seems to know, but apparently the conditions in the paper trades reflect conditions in general business, which in most lines is running below anticipations. This is the more surprising because the crop outlook in Southern California never looked more favorable than it does this year. The most plausible explanation for slowness in demand seems to be that present conditions are an aftermath of what this particular territory has been going through for the last two or three years when rainfall was below the normal and agriculture suffered in consequence. For, whatever one may believe or whatever one may say, even in this paradise for the tourist, agriculture is the leading industry and when that suffers everything suffers with it. Agriculture, in the California sense, must be considered to include horticulture and dairying. All of these out here are primarily dependent upon water and when that gets low so does everything else.

Good Outlook for Future

However the foregoing may explain the present business conditions, it must be confessed that the future looks bright indeed, because up to the present time more than a normal rainfall has been experienced and as soon as the resultant crops begin to be harvested things are bound to pick up. Consequently the paper industry is looking to the future with confidence that after all 1927 will be a year which will come up to the normal in total, however far from the normal demand may fall at the present time. In other words, the industry is banking heavily upon the future to redeem whatever of deficiency there may have been to date.

Some Individual Opinions

C. T. Hochmeyer, vice president and general manager of the Golden State Paper Company, 2600 Santa Fe avenue, says he is feeling fairly well satisfied with the present trend of trade volume, which, while it may be a little below the normal at the present time, holds out alluring promises for the future.

R. F. Attridge, manager of the paper department for Johnson, Carvell & Murphy, merchandise brokers, 247 South Central avenue, reports a fair demand for paper bags and other specialties carried by his concern. There is nothing startling about the volume of present demands but indications are plentiful that as the year advances this will increase materially.

E. W. Buckley, manager of the Western Pacific Paper Company, says his concern has settled down into its now location at Pico and San Pedro streets and that everything is looking bright for the future.

J. A. Kelly, sales manager for the Sierra Paper Company, 130 South Los Angeles street, while admitting that trade in general is languishing a little just at present, is very hopeful that with better conditions growing general throughout Southern California things will perk up in the near future.

Practically the same reports are made by the sales departments of Blake, Moffitt & Towne and the Zellerbach Paper Company.

Opinions Generally Favorable

When every factor in the paper business in Southern California, be it a big factor, a little factor, or what not, takes identically the same view of trade conditions, both as respects the present status and the future anticipations, it is safe to conclude that this consensus is just about right. In short, there is no disposition anywhere to repine over what is as long as the future looks so bright.

Conventions To Be Well Attended

There will be a large and representative delegation from Los Angeles in attendance at the annual convention of the Pacific Coast Paper Trades Association at Del Monte. There are a number of star and near star golf players here connected with the paper trades and all of them expect to be swinging a wicked niblick in the annual tournament pulled off by the allied trades. In fact, there is apparently more interest being manifested in the golf tournament than in the prospective deliberations of the convention, although, in all probability, these latter will receive a full meed of attention when the proper time comes.

Charles A. Elvin, secretary of the Los Angeles Paper Box Manufacturers Association, says there is nothing doing of interest just at this time in the paper box industry. Always this is a dull season in this department of the paper industry as far as Southern California is concerned, and manufacturers are far more interested right now in getting orders for future delivery on their books than they are in manufacturing. Rumors are rife of a number of large contracts having been placed within the last few days.

Among the box manufacturers also there is noticeable a considerable amount of interest being manifested in the forthcoming Del Monte convention for that industry. Charles Ruble, president and general manager of the Standard Paper Box Company, who, together with Dick Graham, sales manager for the Paraffine Companies, have been working upon the details of the program for the convention, announce that their work is well under way and that the program will be interesting and instructive.

Paper Excelsior & Pad Co. Starts

The Paper Excelsior and Pad Company, Inc., has started in business at 427 South Hewitt street, Los Angeles, for the production of excelsior and paper pads for the use of furniture makers. The Los Angeles company is capitalized for $50,000 and is managed by Evert McCabe. L. J. Antonsen, president of the Paper Excelsior and Pad Company, of Seattle, also is an officer of the local corporation. The company announces that it will use nothing but unused news print and newspapers for the raw materials for its product.

Big Contract for Roofing

Contracts for the roofing of the new 5,000,000 gallon reservoir at Riverside, Cal., just have been signed between that city and the Pioneer Paper Company, of Los Angeles. This contract calls for the laying of 96,000 square feet of roofing paper similar to that which is being employed in a number of contracts taken by the company recently in and around Los Angeles. In fact, these contracts call for the laying of more than a square mile of roofing paper in all in this vicinity, officials announced.

Virginia-Carolina Paper Trade To Meet

[FROM OUR REGULAR CORRESPONDENT]

RICHMOND, Va., May 10, 1927.—The Virginia-Carolina Paper Trade Association will hold its meeting and golf tournament at Virginia Beach May 26-27. Edward C. Mead, Box 1195, Richmond, Va., the secretary of the association, announces that arrangements are progressing very satisfactorily and that the meeting and golf tournament are expected to be a big success in every respect.

BLEACHED and UNBLEACHED
SULPHITES
KRAFT PULPS
GROUND WOOD
NORRONA
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PRINTING PAPER
of
EVERY DESCRIPTION

Big Power Project Completed In Wisconsin

Current Transmitted for the First Time Monday From $3,000,000 Hydro-Electric Development To Plant of Northern Paper Mills at Green Bay—Supreme Court Decision Means Big Saving in Switching to Wisconsin Mills

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., May 9, 1927.—Power is expected to be transmitted for the first time Monday from the $3,000,000 hydro-electric project of the Northern Electric Company at Amberg, Wis., to the Northern Paper Mills, Green Bay, Wis., of which the power company is a subsidiary. Announcement of the commencement of power operations was made by Judson G. Rosebush, president of both companies.

At this time power is being furnished over the high tension lines from the vast new dam at Chalk Hills, on the Menominee river. The twin dam at White Rapids is still under construction and probably will not be completed until fall. These dams are among the largest in northern Wisconsin and will mean economy of operation at the Northern Paper Mills.

Bids for a bridge costing $60,000 to join the Chalk Hills and White Rapids plants were rejected by the Marinette county board, and new figures will be requested. As soon as the bridge project is decided, work will be started on the electric company's summer resort made possible by the lakes which were formed after damming the river. A highly attractive site for summer homes will be provided on Lakes Muscano and Rosebush.

A village also will be constructed between the two dams, where workmen employed at the plants and summer resorts will be stationed. There will be six homes and a schoolhouse.

Switching Decision Favors Paper Mills

Savings of several thousand dollars each year will be made by Wisconsin paper mills following a decision by the Wisconsin supreme court which makes it possible for the railroads to reimburse the mills for switching charges. Proceedings were started by the Nekoosa-Edwards Paper Company, the Consolidated Water Power and Paper Company, the Marathon Paper Mills Company and the Wausau Fibre Company and they were victorious in their contentions.

The case arose when the railroads and the mills agreed upon a rate which would be granted to the latter on all switching done by the mills in their yards. The arrangement covered switching which the railroads themselves otherwise would be obliged to perform. The schedule of rates agreed upon was submitted to the Wisconsin Railroad commission but this body contended it had no authority to permit such an agreement. An appeal was taken to the Dane county circuit court and then to the state supreme court, where the commission was overruled and ordered to accept them. All paper mills in the state can avail themselves of this decision.

Sale of Peshtigo Paper Co. Postponed

The receivership sale of the Peshtigo Paper Company, Peshtigo, Wis., scheduled for May 2, has been postponed until August 1. An order issued by Judge Quinlan prevented the disposal at this time.

Since P. M. Allen of Detroit, Mich., became the receiver the mill has operated practically on a 100 per cent production basis. The company is in excellent shape as to orders and improvements made in the mill have stimulated production. Prospects for continued business are good, although Mr. Allen declares the market is apparently off at the present time.

Digesters Razed

Three digesters which were used in the plant of the former Island Paper Company, now the Menasha Paper Mills, Menasha, Wis., have been razed and junked. Dynamite was used to remove the heavy lining.

Lawrence Nash Found Dead

A nervous condition resulting from an attack of influenza caused the tragic death of Lawrence E. Nash, Wisconsin Rapids, Wis. He was found in the attic of his home several days ago, where he had ended his life with a shotgun.

Mr. Nash resigned recently as sales manager and vice president of the Nekoosa-Edwards Paper Company of Port Edwards, Wis., severing a career of 25 years in the paper industry. He was vice president of the Wrapping Paper Manufacturers Service Bureau of New York City at various times, and also a member of the committee on distribution of the American Paper and Pulp Association. He also served as a director of the Wisconsin Paper and Pulp Manufacturers Association. Before coming to Port Edwards he was with the old General Paper Company of Chicago and St. Louis. His friends in the paper industry from many cities attended the funeral.

General News of the Trade

Edwin Hull, paper mill employee of Shawano, Wis., was killed early this week in an automobile accident at Gillett, Wis. He met death when his car and another collided on a highway.

As a reward for saving the plant of the Edgewater Paper Company, Menasha, Wis., the concern paid $25 into the pension fund of the Menasha fire department. Quick work of the firemen prevented the spread of a blaze which started in a cupola several days ago.

William R. Powell, timekeeper at the Fox River Paper Company, Appleton, Wis., for many years, died Wednesday afternoon of this week. He collapsed while sitting in a chair in the company's office reading a newspaper.

On May 10, Frank J. Sensenbrenner, vice president of the Kimberly-Clark Company, Neenah, Wis., will be honored with the formal investiture as a knight of the Order of St. Gregory the Great. His knighthood was ordered by the pope at Rome because of the service he has given for many years on behalf of his church and constitutes the highest honor that can come to a Catholic layman. The ceremonies will be conducted at St. Patrick's church at Menasha, Wis. The Rt. Rev. Paul P. Rhode, bishop of Green Bay diocese, will officiate with the assistance of high church dignitaries.

Sandy Hill Iron Works Elects Officers

[FROM OUR REGULAR CORRESPONDENT]

HUDSON FALLS, N. Y., May 9, 1927.—The annual stockholders' meeting to elect directors and officers of the Sandy Hill Iron and Brass Works, paper mill machinery, was held at the offices of the concern here last Wednesday. The Board of directors elected to serve during the coming year are as follows: Charles W. Kellogg, Harry L. Broughton, James N. Ferris, Richard C. Tefft, Jr., and A. J. Kennedy. The new board of directors subsequently met and elected A. J. Kennedy, president, Richard C. Tefft, Jr., vice president, James N. Ferris, secretary and treasurer.

The plant of the company is said to be quite busy with orders on the books that will require a considerable period to complete. The company specializes in paper making machines.

Those Who Prefer Voith Inlets

NEWS

Anglo-Newfoundland Development Co.	1
Algonquin Paper Corporation	1
Bedford Pulp & Paper Co.	2
Champion Paper Corporation	1
Cliff Paper Company	2
Consolidated Water Power & Paper Co.	4
Delta Pulp & Paper Co.	2
Escanaba Paper Company	2
Finch, Pruyn & Company	2
Flambeau Paper Company	2
Hennepin Paper Company	1
Holden Paper Company	1
Itasca Paper Company	2
Ft. Frances Pulp & Paper Co.	1
Ft. William Pulp & Paper Co.	2
Minnesota & Ontario Paper Co.	2
Manistique Pulp & Paper Co.	1
Northwest Paper Company	3
Oswego Falls Corporation	1
Price Brothers	2
Spanish River Pulp & Paper Co.	2
St. Regis Paper Company	2
Wis. River Pulp & Paper Co.	2
Waterway Paper Products Co.	1
Watab Paper Company	2
Washington Pulp & Paper Co.	1
Inland Empire Paper Co.	2

BOOK

Bergstrom Paper Co.	2
Bryant Paper Company	1
Champion Fibre Co.	2
Champion International Co.	1
Champion Coated Paper Co.	9
Chillicothe Paper Co.	1
Everett Pulp & Paper Co.	1
Jessup & Moore Paper Co.	2
Kimberly Clark Company	6
Miamisburg Paper Company	1
Mead Pulp & Paper Company	7
Peerless Paper Company	1
P. H. Glatfelter Company	1
Provincial Paper Mills	1
Ryegate Paper Company	1
West Virginia Pulp & Paper Co.	5
Watervliet Paper Company	1
Tomahawk Pulp & Paper Co.	1

WAXING

Hammersley Manufacturing Co.	2
Menasha Printing & Carton Co.	4
Paul A. Sorg Paper Company	1
Kalamazoo Vegetable Parchment Co.	2
Consolidated Water Power & Paper Co.	1

SULPHITE BOND

American Writing Paper Co. (Geo. C. Gill Division)	1
Eastern Manufacturing Co.	3
Hammermill Paper Company	5
Groveton Paper Company	1
Howard Paper Company	2
Kalamazoo Vegetable Parchment Co.	2
Riverside Fibre & Paper Co.	1
Munising Paper Company	2
Brown Company	3

PARCHMENT

Kalamazoo Vegetable Parchment Co.	2
Paterson Parchment Company	2

CATALOGUE

Champion Paper Corporation	1
Lakeview Paper Company	2
Combined Locks Paper Company	1
Tomahawk Pulp & Paper Company	1

KRAFT

Advance Bag & Paper Company	1
Albemarle Paper Mfg. Company	1
Bogalusa Paper Company	1
Brown Company	1
Central Paper Company	1
Warren Manufacturing Company	5
Minnesota & Ontario Paper Co.	2
Frank Smith Paper Company	1
Hummel & Ross Fibre Corp.	1
Nekoosa-Edwards Paper Co.	4
Marinette & Menominee Paper Co.	1
Hoskin Moralnville Paper Co.	1
Jaite Company	2
Southern Paper Company	1
Thilmany Pulp & Paper Co.	1
Wausau Sulphate Fibre Co.	2
Wausau Paper Mills	1
International Paper Co.—Bastrop	1

STRAWBOARD

Hinde & Dauch Paper Co.	3

WALLPAPER

Kimberly Clark Company	1
Howard Smith Paper Mills	1

ROTOGRAVURE

Kimberly Clark Co.	2

TISSUE

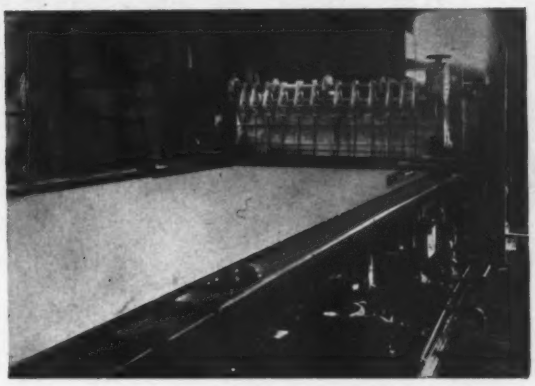
Detroit Sulphite Pulp & Paper Co.	4
Dunn Sulphite & Paper Co.	1
Fort Howard Paper Company	2
Mohawk Valley Paper Company	2
Port Huron Sulphite Pulp & Paper Co.	1
Rhinelander Paper Company	2
Northern Paper Mills	4

GLASSINE

Diamond State Fibre Co.	1
Glassine Paper Company	1
Hartford City Paper Co.	2
Rhinelander Paper Company	1
Westfield River Paper Co.	1
Warren Manufacturing Co.	1
Deerfield Glassine Company	1

SULPHITE SPECIALTIES

Fraser Company	2
Hollingsworth & Whitney Co.	4
Marathon Paper Company	3
Nekoosa-Edwards Paper Co.	3
Bedford Pulp & Paper Company	2
Warren Manufacturing Co.	1
Kimberly Clark Company	3
Northwest Paper Company	1



The Voith Stock Inlet in the Paper Industry

Over 200 Voith Inlets, similar to that pictured above, are now in constant service. Every installation has smoothed out the difficulties and inconveniences encountered by the old fashioned slices.

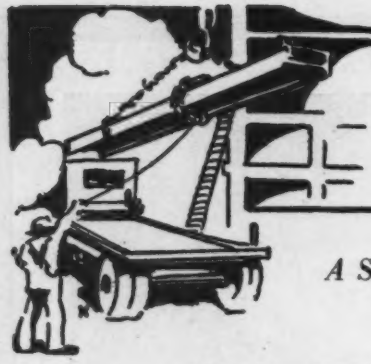
Not only the fact that over 200 Voith Inlets are in use proves that the trade prefers this machine, that it has abandoned the old slices in favor of the Inlet. Every installation means more orders depending on the number of paper machines in the mill and these repeat orders that continually come in demonstrates its general acceptance conclusively.

We have ready for you a booklet giving full particulars regarding the Voith Inlet. Write for your copy today.

VALLEY IRON WORKS CO.

APPLETON, WISCONSIN

New York Office: 350 Madison Avenue



CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Philadelphia, Pa.—The Crescent Box Company, D Street and Erie avenue, manufacturer of paper boxes and containers, is having plans drawn for a new addition, to be two-story, 80x300 feet, reported to cost more than $70,000, with equipment. The Ballinger Company, 12th and Chestnut streets, architect and engineer, will take bids.

Chicago, Ill.—The National Paper Napkin Company, 123 South Jefferson street, has arranged for a lease of a floor of the building at 1011 South California avenue, for a term of years. The space totals 7,000 square feet, and will be used by the company for expansion. It is understood that the present works will be removed to the new location.

Park Ridge, N. J.—Mittag & Volger, Inc., Park Ridge, has awarded a general contract to the Standard Construction Company, 972 Broad street, Newark, N. J., for a proposed new addition at its plant on Park avenue, for the manufacture of carbon and other processed papers. It will be two-story, reported to cost close to $50,000, with equipment. Walter E. Truesdell, 29 Mountain avenue, Summit, N. J., is architect.

North Tonawanda, N. Y.—Remington Rand, Inc., North Tonawanda, manufacturer of card filing systems, card stocks and other office specialties, formed by a recent merger of the Remington Typewriter Company, New York, and the Rand Karkex Bureau, North Tonawanda, is disposing of a bond issue of $25,000,000, a portion of the fund to be used for general expansion, including the acquisition of other properties. B. L. Winchell is chairman of the board; and J. H. Rand, Jr., president.

Chicago, Ill.—The American Decalcomania Company, 4326 Fifth avenue, Chicago, manufacturer of paper products, has completed plans for the construction of a new addition to its plant, about 25x120 feet, reported to cost more than $100,000, including equipment. Halperin & Braun, 17 South LaSalle street, are architects.

Halltown, W. Va.—The Halltown Paper Board Company is reported to be planning the rebuilding of the portion of its plant, recently destroyed by fire with loss approximating about $13,000, including building and stock. The bulk of the loss was confined to warehouse division.

Austin, Tex.—The Railey Paper Company has arranged for the construction of a new building at Fourth and Trinity streets, one-story, reinforced concrete, reported to cost about $17,000. It will be used primarily for storage and distributing service. General contract has been let to J. B. Webb, 1010 San Antonio street, Austin.

Richmond, Va.—The Duplex Envelope Company, 1339 West Broad street, has awarded a general contract to Davis Brothers, Inc., 1716 Summit avenue, for proposed addition to property known as the Coliseum site on West Broad street, recently acquired. It will be 120x128 feet, estimated to cost about $65,000. A portion of the space will be given over to production, and the remainder devoted in part to storage service.

Fitchburg, Mass.—The Fitchburg Paper Company, manufacturer of machine-finished book papers and other high grade paper stocks, is disposing of a bond issue of $600,000 for general financing and expansion. George R. Wallace is president.

Buena Vista, Va.—The Columbian Paper Company is reported to be arranging for the construction of a new building, to replace the structure at the plant, recently damaged by fire, with loss approximating $45,000, including equipment.

Philadelphia, Pa.—The American Container Company, Swanson street, has plans maturing for a proposed new addition to its plant, for which foundations will soon be laid. It will be one-story, 50x300 feet, brick, with cement floor, reported to cost more than $60,000. A. B. Harding, Drexel Building, is engineer, in charge.

Holland, Mich.—C. J. Lawrence & Brother, Inc., recently chartered under state laws, with capital of $50,000 and 2,000 shares of stock, no par value, is said to be arranging the operation of a local plant for the manufacture of paper boxes and affiliated specialties. The company is headed by A. G. Humphrey and L. G. Lawrence, Holland.

New Companies, Etc.

New York, N. Y.—The H-E Corrubox Company has been incorporated with capital of 4,000 shares of common stock, no par value, to manufacture corrugated paper boxes and containers, Joseph Nemerov, 1775 Broadway, New York, is principal incorporator and representative.

Detroit, Mich.—Moers, Inc., has been incorporated with capital of $25,000, to manufacture and deal in paper and other stationery products. The incorporators are Raymond S. Moers, 46 Oakdale Boulevard, Pleasant Ridge; William C. Martin and Vernon G. Dickey, Royal Oak.

New York, N. Y.—Feldman & Liebowitz has been incorporated with capital of $20,000, to deal in paper stocks, and stationery specialties. Samuel Millendorf, 233 Broadway, is representative.

Wilmington, Del.—The International Life-Saving Water Making Cup Corporation has been incorporated under Delaware laws, with capital of 5,000 shares of common stock, no par value, to manufacture special paper products. The company is represented by the Corporation Trust Company of America, duPont Building, Wilmington, Del.

Chicago, Ill.—The Central West Paper Bag Company, 5967 West 65th street, has been incorporated with capital of $100,000, to manufacture and deal in paper bags, etc. The incorporators are Claude D. Raber, George C. Bunge and Richard Bentley. The company is represented by Cassels, Pottery & Bentley, 1060 The Rookery, Chicago.

Buffalo, N. Y.—Eaton, Whiting & Hanford has been incorporated with capital of 1,000 shares of common stock, no par value, to manufacture and deal in paper and other stationery products. Mitchell & Staples, Buffalo, are representatives.

Wilmington, Del.—The Gibraltar Pulp and Paper Corpora-

"as we
THE PUSEY AND JONES CORPORATION
Established 1848. Builders of Paper-making Machinery
[NEWS-PRINT: BOOK PAPER: KRAFT: BOARD]
Wilmington, Delaware, U.S.A.
THE SIGN OF QUALITY

Illustrating the 152-inch Book Paper Machine designed and built by The Pusey and Jones Corporation for the Everett Pulp and Paper Company, Everett, Washington ... This is the third Puseyjones Machine built for this company and is one of four Puseyjones Book Paper Machines built in 1926.

Entire contents of this advertisement copyrighted 1927 by The Pusey and Jones Corporation, Wilmington, Delaware, U. S. A.

tion has been incorporated under Delaware laws, with capital of $1,000,000, to manufacture and deal in paper stocks. The company is represented by the Corporation Trust Co. of America, duPont Building, Wilmington.

New York, N. Y.—The Mells Manufacturing Company, Inc., organized under New Jersey laws to manufacture paper boxes and paper specialties, has filed notice of organization to operate in New York state, with capital of $125,000. Conrad K. Osterman is president. New York office will be located at 812 Greenwich street.

Brooklyn, N. Y.—The Progress Paper Box Company, 464 Liberty avenue, has filed notice of increase in capital from $5,000 to $20,000 for expansion.

Brooklyn, N. Y.—Borum & Pease Company, Front street and Hudson avenue, manufacturer of blank books, loose leaf paper stocks, etc., has filed notice of increase in capital from $1,250,000 to $1,350,000 for financing and expansion.

New Hinde & Dauche Administration Building

SANDUSKY, Ohio, May 2.—Nearly half of Sandusky turned out Saturday, April 23 for the public opening of the Hinde & Dauch Paper Company's new administration building, Decatur

NEW HINDE & DAUCHE BUILDING

and Adams sts. Company officials estimated that more than 10,000 people passed through the halls and offices of the building in the five and one-half hours it was open for inspection.

Visitors seemed greatly impressed and President Sidney Frohman and other officials received countless congratulations on what is considered to be one of the finest administration buildings in this section of the state.

Every feature of this modern four-story office building exemplified the dignity and efficiency of one of Sandusky's leading industries. Here were located 35 offices administrating to the Hinde & Dauch Paper Company. Seven of these were for the large clerical department forces. In every room there was some feature of extraordinary interest to the visitor, significant of the multitude of diverse problems confronting a large manufacturing concern.

Visitors were first received in the lobby of the building, tastefully decorated and furnished. The walls of this room are of traventine made of a single block imported from Italy. The ceiling is finished in Italian Renaissance style and the furniture is a combination of Old English and Italian Renaissance. Here one was first shown the telephone exchange which is connected with every room in the building and also the most modern type of time clock and then taken on his inspection tour.

Every nook and cranny of the building was open to the public for inspection. The tours led through the routing room, into the tabulating room where statistics are electrically tabulated, up a fireproof stairs to the second floor.

The sales, advertising, traffic, purchasing and accounting departments were inspected on the second floor of the building. All were well lighted, every room being an outside room. Indirect lighting at night eliminates all shadows. Guides demonstrated a multitude of labor saving devices, the most modern type of files and itemizing machines, all bespeaking the efficiency of the company. The master clock, which directly controls every clock in the building is also located on the second floor. This clock it was explained, varies no more than 20 seconds a week and is electrically wound.

The stenographers' office for the production, sales and order department was viewed on this floor. Again were seen the same natural and artificial lighting facilities. Desks were large and commodiously spaced. Orders and invoices are traced, checked and corrected here, the guides explained.

Offices of the sales and assistant sales managers are located on this floor. The president's office of the Frohman Chemical Company, a subsidiary to the Hinde & Dauch Company, is on the same floor. The mill sales manager, who supervises the sale of surplus raw material, is also located here. The filing and mailing department was the last office inspected before visiting the fourth floor of the building.

Up the fire-proof stairs to the last and most impressive floor of the building. One was first ushered into a long corridor. On one side was the department office of the engineering department, where measurements for boxes that will best suit shipping purposes of a commodity are deducted. On the other side of the corridor were seen the private offices of the vice president, tastefully decorated. The corridor ended with President Sidney Frohman's private office suite, a board of directors' room, a private secretary's office and the president's private office. Mr. Frohman's office, finished and furnished for the most part in Italian Rennaissance style, with walls of high lighted American Walnut and special lighting fixtures, was the most impressive single office in the entire building.

The tour came to an end at this climatic point. Visitors were returned to the lobby by the company's elevator.

The building was designed and constructed by the Otto Randolph Construction Company, Chicago. It was occupied just six months to the day since work on it was commenced.

Paperboard Industries Association to Meet

The next meeting of the Paperboard Industries Association will be held at the Congress Hotel, Chicago, Wednesday, May 18, and Thursday, May 19, 1927.

On Wednesday, May 18, there will be a meeting of the Paperboard Group in the morning and of the Folding Box Group in the afternoon. This is a change from the schedule of recent meetings, at which the Folding Box Group members met in the morning and the Paperboard Group members in the afternoon.

The Container Group meeting will be held on Thursday morning, May 19; the General Meeting of the three Groups in joint session convening at 2:00 P.M., Thursday, May 19.

The schedule of meetings is as follows:

Wednesday, May 18, 9:45 A.M.-1:00 P.M.—Meeting of the Paperboard Group. 2:00 P.M.-5:00 P.M.—Meeting of the Folding Box Group.

Thursday, May 19, 9:30 A.M.-12:45 P.M.—Meeting of Container Group. 1:00 P.M.-2:00 P.M.—Luncheon in private dining room. 2:00 P.M.-5:00 P.M.—Meeting of the 3 Groups in Joint Session.

Notices will be sent out calling meetings of Standing Committees and Executive Committee, at the Congress Hotel, as follows: Meetings of Standing Committees, 11:00 A.M., Tuesday, May 17. Meeting of Executive Committee, 2:15 P.M., Tuesday, May 17.

The Paperboard Industries Association is cooperating with the U. S. Department of Commerce in the matter of boxboard thicknesses. The Association has sent a letter and a questionnaire to the box board manufacturing industry. Every effort is being made to secure the support of every box board manufacturer.

Nortex

A Spectacular Sales Leader

Sifted right down, here are the reasons why:

NORTEX has proven a money maker in the field of envelopes.

NORTEX is as tough and strong as the finest kraft. It is made entirely of long-fibre pulp which gives it exceptional folding qualities. And, in addition to these wearing features, NORTEX has one other outstanding advantage.

NORTEX is specially designed to make a more distinctive envelope for booklets and catalogs than is possible with the available run of envelope papers. Its natural color and its firm, smooth finish will enrich print or lithograph in any color. Moreover, on special order, it may be obtained in a variety of beautiful tints.

The field for better looking "heavy duty" envelopes is constantly enlarging, and his profits will be greatest who first becomes established with NORTEX.

A NORTEX representative will call at your request. His story may prove profitable to you. Write or call our Chicago Sales Office.

The NORTHWEST Paper Co.

Cloquet Minnesota

CHICAGO SALES OFFICE
537 South Dearborn Street

Eye Hazards in the Paper Industry*

By Alvin F. Record[1]

Broken bones will knit; cuts will heal, sprains and strains respond to treatment; an amputated leg or arm can be replaced with a remarkably serviceable artificial limb; fingers learn to compensate for other lost members, but the loss of eye sight is like shutting the door on everything that we have learned to love, enjoy and appreciate. This means that one of the most important duties of the safety department, the employer, the supervising force and the employees themselves, is to work arduously and persistently to eliminate eye dangers.

The paper industry offers a wide variety of eye hazards. It is hard to realize a more diversified list. This adds greatly to the difficulty of applying and enforcing rules.

To enumerate these hazards, we list, first the handling and pouring of hot metals, such as babbitt and lead. This danger is accentuated in a paper mill on account of dampness and moisture. Experience dictates to us the necessity of insisting that goggles be worn when handling or pouring any hot metal, and as an additional protection in damp places a mask should be provided to cover the entire head, with instructions given as to its use. Often kerosene or oil poured into bearings or joints where there is moisture will prevent the metal from "blowing.' The babbitting mask, however, is the only positive protection.

Chipping concrete, brick or cast metals should be considered next in importance. Every well regulated and well supervised crew will be provided with individual goggles with instructions to insure their use.

Goggling the Grinding Wheel

Emery wheel grinding is a very frequent cause of minor injuries. In this particular danger spot there is no more effective proposition than non-breakable glass shields. This is equivalent to goggling the emery wheels. Where such devices are not provided goggles should certainly be worn by the operators.

Another serious hazard to the eyes is that of light rays from both acetylene and electric welding. Rays from electric welding are so intense that work should always be enclosed to prevent the curious from being injured. The operators must be supplied with covering for all exposed flesh, together with glasses properly shaded to withstand the destructive rays. Acetylene welding, while not so severe, should be isolated wherever possible and the operator protected with suitably colored goggles.

Still another hazard to the eyes is the disc wood barker. The danger from flying knots and chips is always lurking, not only to the operator but to the passerby. The danger to the latter can be greatly minimized by the installation of shields or deflectors on the rims of the barkers and practically eliminated by screening passageways adjacent to the machinery. Accidents to operators can be lessened by wearing goggles.

Minor Hazards

In addition to what we might term these major hazards we have miscellaneous minor ones. Under this class come spattering acids and hot stock; handling irritating and dusty substances such as sulphur, lime, clay, alum and soda-ash; use of burred tools, adjusting boiler fires without colored goggles, and electric arc flashes, all of which can be eliminated or reduced with proper goggles and efficient supervision.

A warning is always in order as to the seriousness of amateur first-aid to minor eye injuries. Too often we see employees picking foreign matter out of the eyes of their fellow workmen with knives, pointed sticks and dirty handkerchiefs. This practice should be discouraged in every way and the injuries promptly referred to the plant nurse, or better still, to a physician.

Fortunately for the paper manufacturer there are on the market devices for protecting the eyes under nearly every conceivable condition. The employers duty to his employees, however, does not stop with the furnishing of suitable protection.

The department superintendent or foreman knows the practices of the department and is acquainted with the hazards. He can do more than anyone else to influence his men to be careful and to use the devices furnished.

The paper manufacturer by analyzing his hazards, by providing comfortable and well fitting eye protection and holding the supervisory force responsible for their use need never look back upon a list of employees who have been deprived of that which gives them the greatest joy and their means of independence.

* From National Safety News.

[1] Supervisor of Safety and Sanitation, Otis Division, International Paper Company.

Paper Container Companies Merged

RICHMOND, Va., May 9, 1927.—Merger of the Richmond Corrugated Paper Company and of the Fiber Board Container Company, both of Richmond, has been consummated. The merger is said to represent properties valued at $500,000. David J. Donati, Jr., president of the Fiber Board Container Company, will head the merged companies. Other officers will be Leo N. Donati, vice president; Leslie T. Stansbury, secretary, and Charles W. Throckmorton, Jr., treasurer. Both properties will be operated independently at present, but later a consolidation will be effected. It is understood the merged business will represent one of the largest manufacturing industries of the type in the country.

Plans for Technical Fall Meeting

DAYTON, Ohio, May 9, 1927.- -Another meeting was held at Middletown the past week to make further arrangements for the fall meeting of the Technical Association of the Pulp and Paper Industry. The tentative dates are October 3-7, which will give ample time for the discussion of the many subjects to come up for consideration.

While it is too early to present a program of the papers on technical subjects to be presented, it is said they will run the gamut of mill operations, which are quite diversified.

The Miami valley branch met last Friday night and decided formally to extend the invitation to the organization, it is understood. However, this plan had been decided on informally at a previous session and all members of the branch, as well as those who are connected officially with committees, are enthusiastic over the prospects of bringing to the Miami Valley some of the ablest men in the profession.

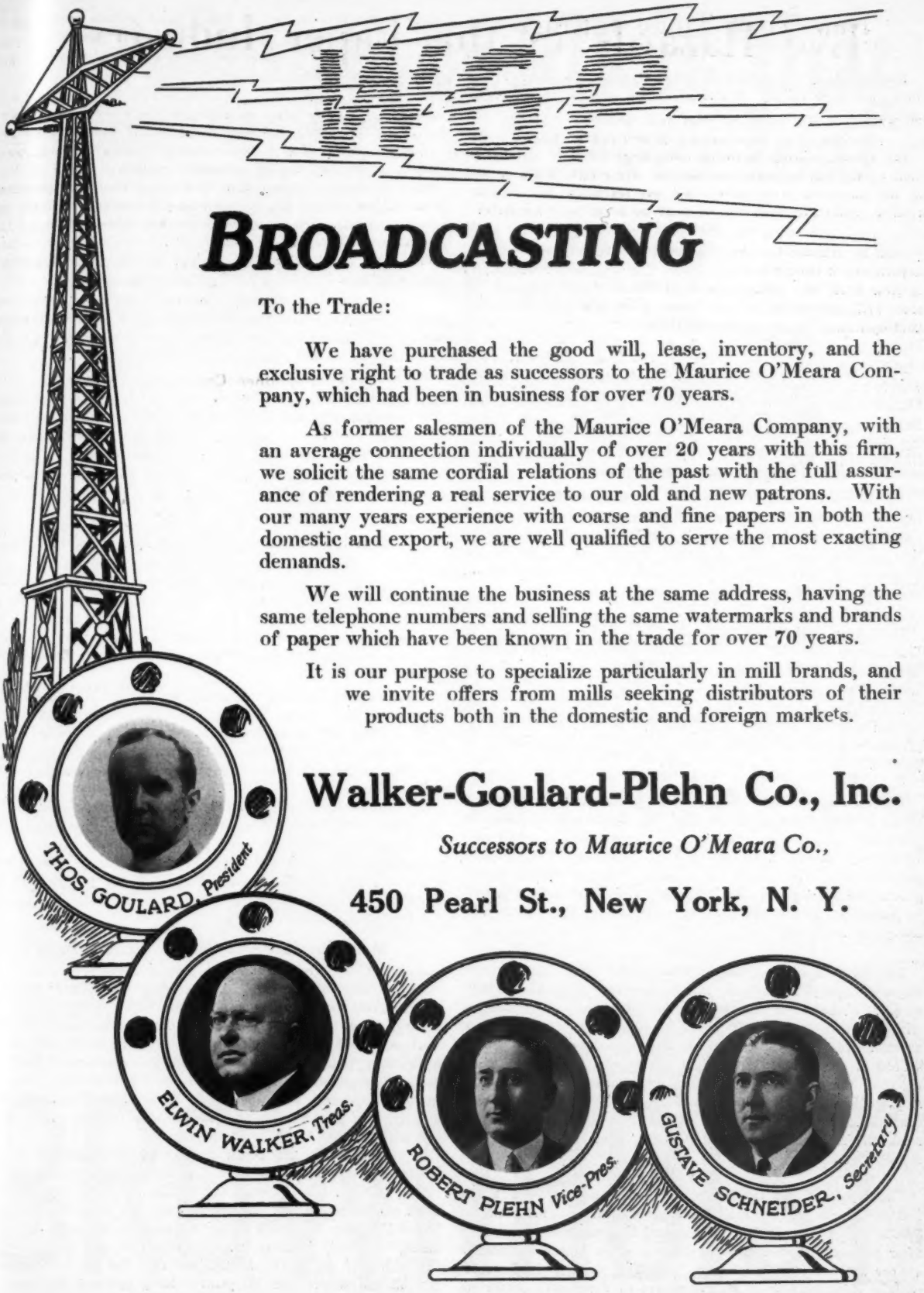
It is felt this valley will receive inestimable good from the meeting. Approximately 200 persons are expected and the interchange of ideas and plans can but prove beneficial to all.

Preparations for the exhibit of paper mill machinery will go forward steadily. It is believed by those in charge of local arrangements that it is none too early to prepare for this feature of the fall convention, as it promises to be one of the most important.

The program details, both in technical contents and social arrangements, can be made more leisurely.

Finnish Paper Makers May Strike May 15

WASHINGTON, D. C., May 10, 1927—The calling of the strike in the Finnish paper industry, which has been threatening for some weeks, has been postponed until May 15 with general indications pointing to the fact that the conflict will be avoided, according to a cablegram received from Assistant Trade Commission Lyon at Helsingfors.



To the Trade:

We have purchased the good will, lease, inventory, and the exclusive right to trade as successors to the Maurice O'Meara Company, which had been in business for over 70 years.

As former salesmen of the Maurice O'Meara Company, with an average connection individually of over 20 years with this firm, we solicit the same cordial relations of the past with the full assurance of rendering a real service to our old and new patrons. With our many years experience with coarse and fine papers in both the domestic and export, we are well qualified to serve the most exacting demands.

We will continue the business at the same address, having the same telephone numbers and selling the same watermarks and brands of paper which have been known in the trade for over 70 years.

It is our purpose to specialize particularly in mill brands, and we invite offers from mills seeking distributors of their products both in the domestic and foreign markets.

Walker-Goulard-Plehn Co., Inc.

Successors to Maurice O'Meara Co.,

450 Pearl St., New York, N. Y.

New York Trade Jottings

Maurice Hoopes, president of Finch, Pruyn & Co., Inc., of Glen Falls, has been visiting New York in the interest of his organization.

* * *

The regular weekly luncheon meeting at the New York Division of the Salesmen's Association of the Paper Industry, held at the Canadian Club, New York, last Monday, was well attended. Affairs of vital interest to the members were discussed.

* * *

John H. Hinman has been appointed manager of the woodlands department of the International Paper Company, with headquarters in New York. Mr. Hinman has been connected with the company since 1917 and his duties have been continuously with the timber land operations of the International Paper Company.

* * *

Erik Serlachius, of G. A. Serlachius, A.B., Manta, Finland, who has been familiarizing himself with American practice in the United States during the past two years, sailed for home recently. Before departing, the members of the staff of the Laferloef Trading Company, Inc., 52 Vanderbilt avenue, New York, and friends, entertained him at a farewell dinner in the Hotel Lafayette.

* * *

The Robison Products Corporation, of 44 East 25th street, has recently been appointed representative for the United States and Canada by Melano & Pettigiani, of Buenos Aires, for the distribution of their casein. The Argentine firm is one of the largest producers of dairy products in that country and operate fifteen units for the production of casein alone.

* * *

The Texas Gulf Sulphur Company, New York, reports for the first quarter of 1927 net income of $2,854,631, after charges, equivalent to $1.12 a share on the 2,540,000 shares of no par stock. This compares with $1,930,624, or 76 cents a share, in the corresponding quarter of 1926. In the first three months of the current year the company added $567,739 to the reserves for depreciation and taxes accrued, making a total for these reserves of $8,500,372.

* * *

The American Tissue Mills, of Holyoke, Mass., have opened offices in New York, at Room 2264, the Woolworth Building, in charge of C. B. Brown. A large stock of samples of textile and velvo crepe papers, white and colored Fourdrinier tissues, plain and decorative crepe papers and napkins, plain and printed waxed papers, and sanigenic waxed lunch rolls and bread wrappers, will be maintained at this office, where customers of the concern will always be welcomed.

* * *

The dividend rate on the common shares of the International Paper Company, New York, will be increased from $2 annually to $2.40 a share, the company announced recently in connection with a plan to issue 500,000 shares of new no-par common stock to stockholders at $30 a share. It is proposed to offer to stockholders of record May 16 the right to subscribe for the new stock equal to the amount held, beginning with the dividend payable August 15. There are now outstanding 500,000 shares of no par common stock, so that with the offering of a like amount of new stock the authorized issue of 1,000,000 shares will all be outstanding.

* * *

The report of the International Paper Company, New York, and subsidiaries, for the first quarter of 1927 shows a net profit of $994,223 after depreciation, interest and Federal taxes, equivalent after preferred dividends to 82 cents a share earned on 500,000 no par shares of common stock, comparing with $261,708, or 92 cents a share earned on 282,295 shares of 7 per cent preferred stock in the first quarter of 1926. Total revenue in the quarter was $3,174,580, against $1,787,805 in the first quarter last year. There was a surplus of $160,543 after dividends, comparing with a deficit of $287,808 a year ago.

Wax Paper Products To Start at Omaha

OMAHA, Neb., May 6, 1927.—Omaha will add a wax paper factory to its long list of industries on June 1, when the Wax Paper Products Company will open for business on the second floor of the former M. E. Smith & Co. building at Tenth and Douglas streets. The company has leased 6,600 square feet. The company will be owned by Daniel and David Baum, Omaha capitalists, and A. J. Sadler, Sioux City. He is identified with the Baum brothers in the Sioux City (Ia.) Iron Company.

The inventory and working capital for the new industry will amount to approximately $100,000, according to Thorne A. Browne, manager, industrial bureau of the Chamber of Commerce, who has been working on the project for several months.

Part of the equipment of the wax paper company was purchased in St. Paul, Minn., where a wax paper company closed business. To this equipment will be added much more modern machinery. A waxing machine for the plant will weigh 25,000 pounds, and will cut paper at the rate of 800 feet a minute.

The company will also have a printing unit, which will print wax paper in four colors.

Crown-Willamette Provides For Reservoir

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., May 5, 1927.—An agreement has been reached between the Crown-Willamette Paper Company and the city of Astoria relative to the purchase of the property necessary for the headworks reservoir of the Young's River water system, which is being promoted to provide water for industrial needs in the region.

The proposed agreement contemplates the transfer of approximately 225 acres above Young's River Falls, a considerable portion of which will be flooded by the reservoir to be created by the dam at the crest of the falls. The tract takes in all the land to the ridge on the right bank of the stream and as high as the present railroad bank.

By this arrangement the city will prevent contamination of the reservoir so that when it becomes necessary to appropriate some of the water for domestic use it will be safe to do so.

The new agreement also concerns the company's power house site at the foot of the falls and the right of way for the pipe line itself through the company's property below the falls.

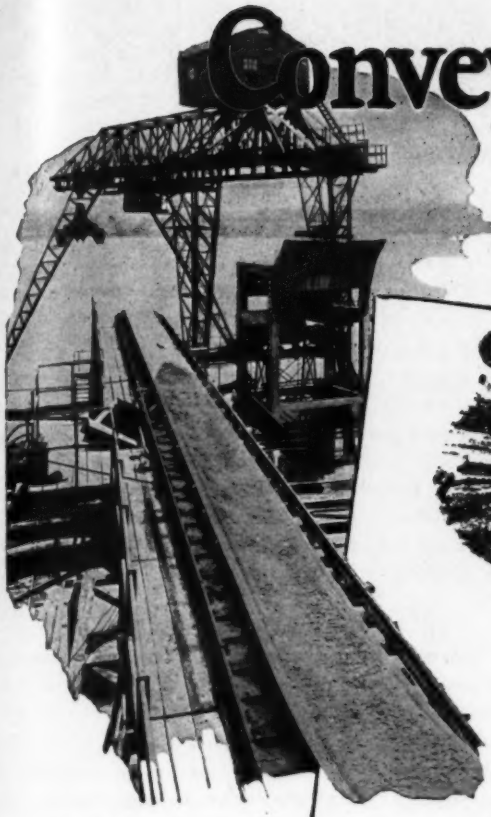
Michigan Paper Co. Starts Coating Plant

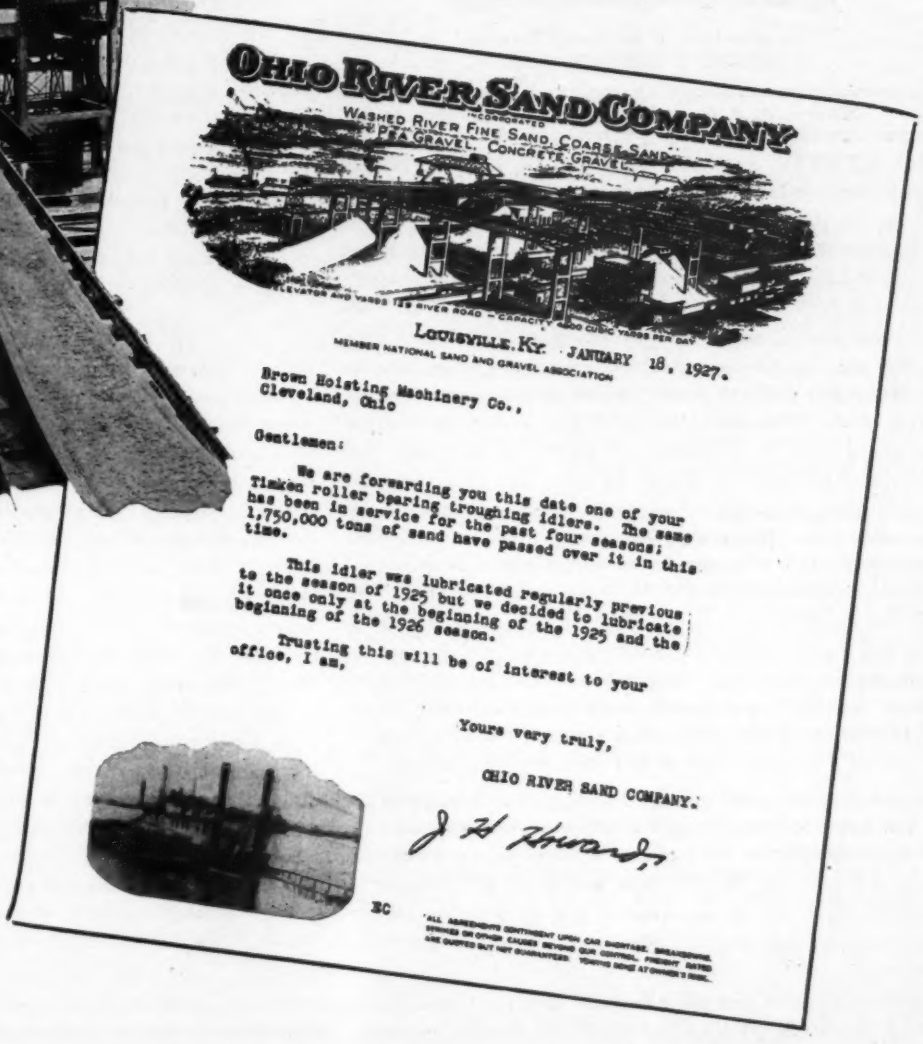
[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., May 9, 1927.—George W. Gilkey, secretary and general manager of the Michigan Paper Company, reports that operations of the company's new coating plant in Kalamazoo start satisfactorily. This unit, purchased from the defunct Bradford Paper Company, was found to be in exceptionally fine condition throughout. Coating experts have pronounced it one of the best equipped small plants in America and capable of a maximum of production. The plant is now running on about 50 per cent capacity basis.

A program that will result in decided improvements in the company's mills in Plainwell is now being considered, according to Mr. Gilkey. It is expected the details will be worked out and work started before fall. During the past two years the Michigan Paper Company has made numerous plant betterments, all combining to greatly increase tonnage output, as well as improving the quality of the paper. Despite the fact that the book market is a bit dull at this time, the plant is being operated full time.

Conveyor Idlers that never loaf




OHIO RIVER SAND COMPANY
INCORPORATED
WASHED RIVER FINE SAND, COARSE SAND
PEA GRAVEL, CONCRETE GRAVEL
ELEVATOR AND YARDS 129 RIVER ROAD — CAPACITY 1000 CUBIC YARDS PER DAY
LOUISVILLE, KY. JANUARY 18, 1927.
MEMBER NATIONAL SAND AND GRAVEL ASSOCIATION
Brown Hoisting Machinery Co.,
Cleveland, Ohio
Gentlemen:
We are forwarding you this date one of your Timken roller bearing troughing idlers. The same has been in service for the past four seasons; 1,750,000 tons of sand have passed over it in this time.
This idler was lubricated regularly previous to the season of 1925 but we decided to lubricate it once only at the beginning of the 1925 and the beginning of the 1926 season.
Trusting this will be of interest to your office, I am,
Yours very truly,
OHIO RIVER SAND COMPANY.
J H Howard,
EC

Brownhoist Idler Performance

Careful inspection of this Brownhoist roller bearing idler revealed only a slight curvature of outside roller shells and an almost imperceptible end play in the bearings. No wear could be measured in the remainder of the idler. After reassembly it was pronounced good for another 1,750,000 tons of sand.

You can get similar service from the Brownhoist roller bearing idler. Why not try one out at once? You can't go wrong on this sturdily built roller bearing idler. Let us prove it.

The Brown Hoisting Machinery Co., *Cleveland, Ohio*

Branch Offices: New York, Chicago, Pittsburgh, New Orleans, San Francisco and St. Louis.

BROWNHOIST

PAPER TRADE JOURNAL
ESTABLISHED 1872
With Which Is Combined
PAPER
The Magazine of the Paper Industry
HENRY J. BERGER, Editor

Member A. B. C. Audit Bureau of Circulations

Vol. LXXXIV New York, May 12, 1927 No. 19

FOREIGN TRADE IN PAPER

Exports of paper and paper products from the United States during the first three months of 1927 show a slight rise in aggregate value, both in comparison with the preceding quarter and with the corresponding quarter in 1926, according to the Paper Division of the Department of Commerce. Two outstanding features in the current year's shipments are the generally lower average value of the shipments as compared with a year ago and the downward trend in the volume of exports of fine papers and paper specialties since the first of the year. The latter movement is particularly noticeable in book paper, tissues and tissue specialties, office forms, papeteries, and envelopes. On the other hand, exports of news print and surface-coated papers show a considerable improvement, and while shipments of the former are still considerably under the level of the first three months of 1926 they exceed those of the preceding quarter by 9 per cent.

No appreciable change is noticeable in wrapping paper shipments, the volume going forward during the quarter ending March 31, 1927, exceeding the corresponding period in 1926 by 5 per cent, but falling 3 per cent under those for the preceding quarter.

Board shipments were well above those of a year ago, exports of box board, bristols, and wall boards also surpassing those of the preceding quarter. An exception in this group was vulcanized fiber, shipments for the first three months of 1927 showing a reduction of 17 per cent as compared with the preceding quarter and of 21 per cent compared with the corresponding quarter in 1926.

Imports of paper and paper products into the United States during March reached a total of $12,237,474 in value, exceeding those of the same month last year by 2 per cent and bringing the aggregate value of receipts for the first three months of the current year up to $34,613,788 as against $32,249,835 for the corresponding period in 1926. Imports of standard news print, which comprise nearly 90 per cent of these receipts, totaled 416,824 tons (long ton of 2,240 pounds) for the three months' period an increase of 43,099 tons, or 12 per cent, over the first quarter of 1926. Owing to the lower average import value, however, receipts of this class during the same period show an increase of only 8 per cent.

Imports of other classes of paper and paper products, which had an aggregate value for the quarter of $3,721,875, were about on a level with the corresponding period last year, decreases in such lines as miscellaneous printings, greaseproof and kraft wrappings, writings, wall paper, boxes, and pulp boards being offset by increased receipts of surface-coated paper, tissue paper, miscellaneous wrappings, cigarette paper, and decalcomanias.

Imports of paper base stocks, which were valued at $9,243,663 during March fell off 5 per cent as compared with the same month in 1926, although owing to heavier receipts during the first two months of the year, incoming shipments for the quarter amounting to $28,820,773 were only slightly below the value of those for the first three months of last year. That no larger decrease was registered in these receipts is due largely to the heavy increase in pulpwood shipments, which rose from 323,748 cords during the first quarter of 1926 to 505,734 cords during the first quarter of 1927 with a corresponding rise in value from $3,039,074 to $4,785,427. Imports of kraft pulp, amounting to 75,169 tons valued at $4,726,047 also increased, but reductions ranging from 25 to 45 per cent took place in imports of mechanical ground wood, rags, and other waste stocks, while imports of sulphite pulp remained at approximately the same level as a year ago.

STANDARDS YEARBOOK 1927

The Standards Yearbook represents an effort to present an adequate picture of the diversification and ramification of the standardization movement which has spread throughout the world with astonishing vitality during the 25 years that have elapsed since the establishment of the National Bureau of Standards. It contains outlines of the activities and accomplishments of not only this bureau and other agencies of the Federal Government and the states and municipalities but also of the American societies and associations of which standardization is a major or very important activity. Descriptions and illustrations are presented of all the fundamental national standards of the United States. Moreover, outlines are given of the various foreign, national and the several international standardizing agencies.

As a companion volume to Commerce Yearbook which deals strictly with industry and commerce, the Standards Yearbook deals strictly with standards and standardization. In one volume are correlated the essentials concerning standardization activities with which the Bureau of Standards is in close cooperation, and the subject of standardization is presented in its entirety.

In a general review of the standardization movement in America attention is directed to the remarkable growth in the activities of the trade associations, the development of "mass production" method of factory production and to the vital interest now being shown in standardization by industrial executives. Noteworthy in the trend in the development of standards is the process based on the elimination of excess varieties and sizes which is supplementary to the slower process involving technical consideration. A development of no little importance is the substitution of performance, or service, requirements for composition specifications in certain lines of manufacture.

To manufacturers, industrial experts, engineers and purchasing agents both governmental and general, to all officers and agencies concerned with standardization, the Standards Yearbook will be most valuable. It will inform the manufacturer of the current standardization movements affecting his industry. It will inform

purchasing agents of new standard specifications, being supplementary to the National Directory of Commodity Specifications in this respect, and will inform the scientist engaged as to current research projects which may lead to standardization. To the average reader it will prove a mine of information on the present status and trend of standardization in all fields of industry, commerce, science, and Government, with references to sources of further information.

The Standards Yearbook is being issued as Bureau of Standards Miscellaneous Publications No. 77, and can be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at $1.00 per copy.

Wood Utilization Committee Meets

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., May 10, 1927—Reuben R. Robertson president of the Champion Fibre Company, Canton, N. C., was elected chairman of the subcommittee on pulp and paper for the coming year at the annual meeting of the National Committee on Wood Utilization, held here last week.

The subcommittee on pulp and paper arrived at the following conclusions and so reported to the full committee:

"1. That it was the sense of the committee that the work of the two subcommittees (1) the committee on unutilized wood, and (2) the fiber box committee, should be confirmed as desirable activities and it was suggested that this work be carried on.

"2. After considering several proposals it was unanimously agreed that the following new project be presented to the National Committee as the recommendation of the pulp and paper committee for the following year:—

"Study of possibility of utilization and the economic limitations of little used species and other fiber materials, not with the idea of stimulating use but to present the facts as to what is being done."

Among those on the committee and attending the conference in addition to Mr. Robertson were: Dr. Hugh P. Baker, secretary American Paper and Pulp Association; E. W. Kiefer, Port Huron Sulphite & Paper Company, Port Huron, Mich.; Benjamin I. Ward, Clifton Paper Mills, Passaic, N. J.; J. P. Hummel, Hummel-Ross Fibre Corporation, Hopewell, Va.; and Sidney Frohman, vice president, Hinde & Dauch Paper Company, Sandusky, Ohio.

Standard Paper Sizes Unchanged

WASHINGTON, D. C., May 10, 1927.—At a recent meeting of the Committee on Simplification and Standardization of the American Paper and Pulp Association, it was decided, according to information received here, that the paper sizes recommended in the original report of July 1, 1924, be continued as effective for another year. This was the report which was agreed to with the Simplification Division of the Department of Commerce.

Those attending the meeting included S. L. Willson, American Writing Paper Company, chairman; R. F. McElwain, Crocker-McElwain Company; Allen Curtis, International Paper Company; Col. B. A. Franklin, Strathmore Paper Company; Hugh P. Baker, secretary American Paper and Pulp Association; and H. R. Colwell, Simplified Practice Division, Department of Commerce.

Mr. Willson pointed out the necessity of going further along with standardization in the paper industry and stressed the point that an educational campaign must be indulged in to reach not only the manufacturer, but also the merchant, purchasing agent, printer and the general public. There was discussion on this subject and it was agreed that the association should print, in pamphlet form, with the consent of the subsidiary associations issuing them, all trade customs now in use and that the pamphlet should carry some informative material as to standardization.

Brotherhood Reports Satisfactory Conditions

ALBANY, N. Y., May 9, 1927.—May Day passed without the slightest semblance of trouble in the paper industry and according to advices from the International Brotherhood of Papermakers' headquarters in this city, there is complete harmony between the union and paper manufacturers of this country and Canada working under agreements with the organization.

William R. Smith, president of the Brotherhood, and other officials of the union, have been busy during the past few weeks negotiating new wage and working agreements with the manufacturers. Most of the mills, it is said, have already signed new agreements which run until May, 1928, but there are still a few conferences scheduled with paper manufacturers. It is expected that by the middle of the month new agreements will have been signed with all mills dealing with the Brotherhood. According to President Smith there is absolutely no prospect of any strike or disturbance.

Brotherhood officials say that in not one instance do the new agreements call for a reduction in the present wage scale. In many places adjustments and changes were made that will result in higher wages for some classes of workers.

President Smith, Vice President Frank P. Barry and Secretary Matthew Burns have held a number of conferences with paper companies where agreements do not expire this year. In these cases agreements were not reopened, the conference being for the purpose of clarifying the position of both parties in respect to the continuation clause in the agreements.

During the past week Vice President Barry, of the Brotherhood, conferred with officials of Finch, Pruyn & Co. in Glens Falls, at which time a new agreement covering wages and working conditions for one year was adopted. On May 5 a conference was held with the Lincoln Paper Mills, Ltd., at Merriton, Ontario, and later union representatives met with officials of the Advance Bag and Paper Company at Howland, Me. The present agreements with the last two named companies run until May 15.

Prior to May 1 the Brotherhood was successful in negotiating a new agreement with the J. R. Booth Company, Ltd., of Ottawa, which provides for wage increases for third hands and beater engineers. The Minnesota and Ontario Paper Company, of International Falls, Minn., the Fort William Paper Company, of Fort William, Ontario, Kenorah Paper Mills, Ltd., Kenorah, Ont., the Consolidated Power and Paper Company, of Wisconsin Rapids, Wis., are among the concerns which signed new agreements recently, all of these agreements having been negotiated by President Smith.

The Brotherhood representatives in their conferences with paper manufacturers have made little headway, it is admitted, in gaining the extra holiday for the workers. The only instance where this was accomplished was at Hudson Falls, where, it is said, that the Union Bag and Paper Company has agreed to the extra holiday for the men.

A board of canvassers is in session during the present week at Brotherhood headquarters here canvassing the vote cast by local unions on the matters that grew out of the convention held by the International Brotherhood of Papermakers in this city several weeks ago. The results of the referendum will be announced as soon as the canvassers complete their work.

Detroit Paper Co. Starts

DETROIT, MICH., May 9, 1927.—The organization of the Detroit Paper Company has been completed with W. J. O'Donoghue, president; George F. Carroll. treasurer and R. M. Foley, vice president and treasurer. The company will handle book papers, bonds, writing and ledger, conducting a jobbing business as well as mill shipments. The company is located in the Coe Terminal Warehouse where it has offices and favorable arrangements for warehouse facilities. This building is located on the Michigan Central siding with a 28 car platform and is considered an ideal arrangement for a paper house.

MATHIESON
Industrial Chemicals

Manufacture—Distribution—Service
United for Your Benefit

Contrast the organizations of fifty years ago with the organizations of today. The manufacturer of that former time was a processor—and only that. The man who sold the output of the producer was generally uninformed concerning manufacturing problems just as the manufacturer was largely ignorant of markets and selling problems. The result was a total lack of coordination, to the loss of the ultimate consumer.

On the other hand, consider the modern idea of organization, with the three divisions of manufacture, distribution, and service combined in a single unit. EAGLE-THISTLE products offer an excellent example of this plan; their source is in Mathieson properties, they are processed in Mathieson plants, sold by Mathieson representatives and serviced by the Mathieson staff. Here we have the up-to-date conception of complete coordination between production and merchandising, together with the necessary unity of organization to put this into effect.

This uninterrupted contact with the product, right through from raw materials to consumer, provides a very definite assurance that EAGLE-THISTLE products are made to meet customer needs. It also offers a guarantee of quality, both of product and of service. For with the manufacturer of these chemicals directly responsible for quality and performance there can be no place for excuses—no chance for misfits.

You can secure all the advantages of this complete Mathieson service by specifying EAGLE-THISTLE in ordering industrial chemicals.

CAUSTIC SODA
LIQUID CHLORINE
BICARBONATE OF SODA
MODIFIED VIRGINIA SODA
SODA ASH
BLEACHING POWDER
ANHYDROUS AMMONIA
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Section of the

Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

Kinetics of Sulphite and Soda Cooking Processes *

I shall present the work that we have done during the past year with the use of micro-cooks for purely theoretical studies on the reaction kinetics of the pulping process.

One gram of finely ground wood is placed in a test tube and the cooking liquor—generally about 5 cc.—is carefully added so that no wood floats on top. The tube is filled with nitrogen, and then is sealed by fusion. It is allowed to stand at room temperature until the following day in order to insure thorough penetration. In cooking with alkaline reagents we have found it necessary to use a ½-inch steel tube, closed at one end and having a removable plug at the other. Glass tubes are strongly attacked by alkali and hence lead to errors. The tubes are placed within al-inch steam pipe wich is partly filled with water and closed l-inch steam pipe which is partly filled with water and closed with a lead packing. The microautoclaves are then placed in an oil bath at the desired temperature. We have calculated that thermal equilibrium is established in about 10 minutes. After the desired cooking period has passed the autoclave is instantly cooled by immersion in cold, running water. The effect of the liquor on the wood in the preliminary period has been determined on a number of trial runs, and correction has been made where it was found necessary, for example, on short cooks at high temperatures. The strongest sulphite liquor used and a temperature of 140 degrees centigrade dissolved 3 per cent of the wood during the 10 minute preliminary period. No significant effect could be found in the yield when the wood stood in the same liquor for a whole day at ordinary temperatures. With soda liquor, on the other hand, some action goes on in the cold, so that in this case the preliminary period has a very marked effect.

Determining Yield of Fiber

To determine the yield of fiber the entire cook is transferred to a Gooch crucible, thoroughly washed, dried, and weighed. With ordinary cooking liquors it is not even necessary to make ash determinations.

If we desire to determine what effect the liquor has had upon the cellulose, and upon the incrustants, respectively, we run into the analytical difficulties inherent to cellulose chemistry. There is no exact chemical method of determining the cellulose content of either the fiber or the dissolved material. We have used the chlorination method of Cross and Bevan, but, as is universally known, the material which is weighed as "pure" cellulose contains considerable amounts of pentosans and should therefore be corrected. It is unfortunate that the pentosan determination by distilling with hydrochloric acid and precipitation of the furfural with phloroglucin is also largely empirical.

The data which I shall present today was taken by E. Strangeland on the sulphite process, and by T. Overwein on the soda process. S. Stene assisted with the calculations.

The Sulphite Process

Considering the sulphite process first, cooks were conducted at temperatures of 110, 125, and 140 degrees with four different cooking acids, all having 10 grams per liter. CaO content, but with 25.9; 34.0; 44.0 and 56.1 grams per liter SO_2 respectively. The wood contained 52 per cent cellulose and 48 per cent incrustants on the dry basis. The pentosan content was 10.72 per cent. The velocity of the reaction, $\frac{dx}{dt}$, was determined for each point by determining the slope of a line tangent to the curve at that point by graphical means. This method is simple and eliminates a complicated calculation. The amount of wood dissolved increases both with time and SO_2 concentration, as well as with increase in temperature. The attack on the cellulose increase rapidly with the temperature. At 140 degrees centigrade we could not cook for 10 hours without getting a "burnt" cook. After about 7 hours changes have occurred in the composition of the cooking liquor which are conducive to a rapid deterioration of the cellulose.

Considering only the removal of the incrustants, we have calculated the reaction constant from the monomolecular equation,

$$k = \frac{1}{t} \log \frac{a}{a-x}$$

where t equals time in hours,

a equals the amount of incrustants originally present (48g/100g wood)

x equals the amount of incrustants removed during the time t

The results are presented in Table 1. It is apparent that for each separate cooking liquor and temperature the constants are in good agreement for the various periods of time. The values in brackets are naturally low since at these long periods the incrustants have been reduced to very low values.

Values Not Truly Constant

When the values are corrected for the total SO_2 content, taking 1g. of free and combined SO_2 per cc. as the concentration, it is evident that the values for the different liquors are not truly constant but decrease slightly. As a whole, however, the values would tend to indicate a monomolecular reaction.

These results are somewhat surprising in that it would not seem reasonable to suppose the removal of incrustants from

* Abridged translation of an address by Dr. S. Schmidt-Nielsen, in Papir Journalen, Oslo. Translated by Clifford E. Peterson.

wood to be a monomolecular reaction, considering the SO_2 concentration, the hydrogen ion concentration, and the various diffusion processes which are present. But nevertheless, it is of great interest to note that the sum total of the reactions can be calculated as shown. Personally, I hold all possible reservations as to the general validity of these results.

Caustic Soda Cooking

As concerns cooking with caustic soda, I want to say at once that the experimental difficulties are much greater. In the first place, alkali attacks glass with precipitation of silicic acid as preliminary period., in coming up to temperature, is of great values. Therefore, steel tubes have to be used which prevent seeing how well the wood is covered with the liquor, and whether or not all the sample has been washed out for analysis. The preliminary period, i.e. in coming up to temperature, is of great importance, 12-15 g/100g. wood being removed.

The experiments of Brun, to which I referred three years ago, have been subjected to kinetic calculations by Arrhenius, and, according to him, the rate of solution of the incrustants follows the laws of monomolecular reactions, in agreement with the result presented here for the sulphite process. Brun's data and Arrhenius' calculations have been frequently cited in the literature, but I must present data that show the alkaline process *not* to be monomolecular. In the first place, Brun did not take into consideration the preliminary period, and as I have shown, this is vital in this process. Only periods of 6 and 10 hours were used, i. e., the progressive action was not sufficiently determined to describe the locus of a curve.

Our cooks were conducted at temperatures of 130, 140, and 160 degrees centigrade with liquors of 40, 60, 80, 100 grams per liter sodium hydroxide for periods of 2, 4, 6, 8, 10, 12, 14, and also 45 and 55 hours. With the weakest liquor and the longest time nearly all of incrustants were removed. The calculations are presented in Table 2 (a) is equal to 49. Without taking into consideration the concentratons, we see that the values for (k) decrease continually with the time, so that after 14 hours the values are from one-third to one-fifth of the original values. The same is true after correcting for concentration, taking 1 gram per liter as the concentration. At 160 degrees Arrhenius found to be 6.06 for 6 hours, and 4.53 for 10 hours. In the last column of Table 2 the corresponding constants are 6.92 and 4.5, respectively, which is excellent agreement for these specific conditions. However, when we consider that (k) for 2 hours is 12.5 but only 3.5 for 14 hours it is evident that it is far from being a constant, and that the reaction can in no way be considered monomolecular.

TABLE 1
SPEED OF REACTION IN REMOVAL OF INCRUSTANTS BY THE SULPHITE PROCESS

		110° C.		125° C.		140° C.	
			K		K		K
No. of acid	Time in hours	100 K	C SO_2	100 K	C SO_2	100 K	C SO_2
1	1.0	2.08	1.44	8.94	6.25	18.4	12.80
	2.5	2.30	1.60	7.92	5.50	18.3	12.75
	5.0	2.25	1.56	7.62	5.05	17.6	12.20
	7.5	2.35	1.63	6.48	4.50	17.4	12.10
	10.0	2.29	1.59	5.97	4.15	17.9	12.40
	15.0	2.34	1.62	4.90	3.40		
	30.0	(1.83)	(1.27)	(2.90)	(2.01)		
2	1.0	3.22	1.43	10.6	4.70	22.0	9.75
	2.5	3.04	1.35	9.21	4.32	24.3	10.80
	5.0	2.95	1.31	9.24	4.10	25.9	11.50
	7.5	3.04	1.35	9.11	4.05		
	10.0	3.08	1.37	9.00	4.00		
	15.0	3.22	1.43	9.30	4.13		
	30.0	(2.95)	1.31	(6.37)	(2.83)		
3	1.0	3.68	1.13	12.3	3.79	31.6	9.70
	2.5	3.68	1.13	11.6	3.56	36.1	10.80
	5.0	3.78	1.16	11.1	3.42	43.6	13.40
	7.5	3.78	1.16	11.0	3.40		
	10.0	3.90	1.20	11.0	3.40		
	15.0	4.16	1.28	11.5	3.53		
	30.0	4.30	1.32	(7.6)	(2.34)		
4	1.0	5.25	1.18	15.6	3.51	47.2	10.60
	2.5	4.90	1.10	14.1	3.16	48.1	10.80
	5.0	4.81	1.08	13.4	3.02	51.2	11.50
	7.5	4.95	1.11	14.0	3.14		
	10.0	5.03	1.13	13.8	3.21		
	15.0	5.25	1.18	14.4	3.24		
	30.0	5.00	1.12	(8.15)	(1.83)		

Acid No. 1—25.9 g/l. SO_2, 10.0 g/l. CaO
Acid No. 2—34.0 g/l. SO_2, 10.0 g/l. CaO
Acid No. 3—44.0 g/l. SO_2, 10.0 g/l. CaO
Acid No. 4—56.1 g/l. SO_2, 10.0 g/l. CaO

TABLE 2
SPEED OF REACTION IN REMOVAL OF INCRUSTANTS BY THE SODA PROCESS

		130° C.		140° C.		160° C.	
			K		K		K
Conc. of NaOH in g./l.	Time in hours	100 K	C NaOH	100 K	C NaOH	100 K	C NaOH
40	2	27.1	6.73	29.3	7.35	50.2	12.50
	4	15.8	3.95	17.9	4.47	31.5	7.88
	6	11.3	2.82	13.4	3.35	27.7	6.92
	8	9.05	2.25	10.6	2.65	22.0	5.50
	10	7.35	1.83	8.8	2.20	18.0	4.50
	12	6.30	1.57	8.2	2.05	15.0	3.70
	14	5.62	1.40	7.1	1.75	14.0	3.50
60	2	33.2	5.52	31.4	5.2	64.5	10.70
	4	16.8	2.80	19.3	3.2	55.6	9.25
	6	11.9	1.98	15.0	2.50	38.0	6.32
	8	9.4	1.57	13.0	2.27	30.0	5.00
	10	8.0	1.33				
	12	6.75	1.13	8.6	1.43		
	14	6.00	1.00	8.0	1.33		
80	2			34.6	4.32	85.4	10.70
	4			21.0	2.62	58.0	7.24
	6			16.8	2.10	44.5	5.55
	8			12.9	1.61		
	10			11.0	1.37		
	12			9.9	1.24		
	14			10.5	1.31		
100	2	34.5	3.45	34.1	3.41		
	4	18.2	1.82	21.0	2.10		
	6	12.5	1.25	17.7	1.77		
	8	9.8	.98	14.3	1.43		
	10	8.0	.80	12.1	1.21		
	12	6.97	.70	11.1	1.11		
	14	6.08	.61	11.8	1.18		

Reactions Entirely Different

Thus it is seen that the reaction kinetics for the sulphite and soda processes are entirely different. The first can be considered as monomolecular; the latter not so. How this is to be interpreted or explained must wait for the time being, but it is of great interest in any event.

As I have said before, I retain all possible reservations as regards the general validity of these results. What has been of prime interest to me is to show that it is not entirely hopeless to enter in upon a study of the kinetics of such heterogeneous systems as we have in the production of cellulose from wood. Investigations like these certainly add to our knowledge of the very nature of the cooking processes, and in that way results of value will undoubtedly be gained for the industry as a whole.

KSG Process

Low Temperature Carbonization of Coal

In a pamphlet issued by International Combustion Engineering Corporation, New York, is described the process for low temperature carbonization of coal in operation at the Stinnes collieries, Essen, Germany since 1924 and known as the KSG process.

The principal feature is the retort which is a double revolving drum, the crushed coal carried through the inner shell of the drum by means of an internal spiral and then discharged into the outer concentric drum gravitating back to starting point.

During its passage through the inner shell the coal is heated to a temperature of 200 degrees centigrade and completely distilled while passing through the outer shell.

On some American coals with 33 to 36 per cent volatile matter the average results were as follows:

Yield	Quantity	Per cent by weight
Semi-coke	1,412 pounds	70.6
Tar	30.6 gallons	13.2
Gas (772 B.t.u.)	3,470 cubic feet	10.0
Motor spurt	3.30 gallons	1.2
Water		5.0
		100.0

Waste Mail Pouches As Papermaking Material*

By Merle B. Shaw[1] and George W. Bicking[2]

An investigation has been recently conducted at the Bureau of Standards to determine the papermaking value of worn mail pouches which have been pronounced unserviceable for postal use. Worn or damaged pouches are repaired in so far as practicable, but condemned ones and waste from the repair shop are mutilated into scrap and marketed as "junk" under contract to the highest competitive bidder. The metal parts are removed first in the salvaging and are disposed of separately. The unavoidable treatment to which mail pouches are subjected in train and station use causes them to become very dirty. Because of this condition the market price for the refuse material has been relatively low although the cloth used in the manufacture of the pouches is a good grade of cotton duck. The tests described were made to determine the cleanliness and papermaking quality that could be expected in the pulp produced from the waste. The General Supply Committee, Treasury Department, requested this investigation with a view to securing a better price for the waste if its papermaking quality is good.

Since the amount available is a factor in the value of a material for commercial paper making, inquiry was made as to the amount of the waste mail pouches. The General Supply Committee stated that about 900,000 pounds of this material is sold annually. In some years nearly one-third of the supply is new waste derived from the manufacture of the pouches. Inasmuch as the quantity is sufficient to permit consideration of the material for paper manufacture the tests reported herein are deemed of interest to the paper industry.

Papermaking Tests

Raw Material

Five hundred pounds of condemned pouches was employed in the experimental tests. The color of the cloth of which the pouches are made is white striped with blue.

Equipment

The tests were made on a semi-commercial scale under practical mill conditions. The equipment employed for the work was that in general use in the Bureau's mill and consisted of a rag cutter, rag duster, rotary boiler, 50-pound wood tub beater (with manganese-bronze bars and plate) equipped with a washing cylinder, small Jordan (with iron bars), a 4-plate screen, and a 29-inch fourdrinier papermaking machine (with fire 33 feet long and having two presses, nine 15-inch dryers, a small machine stack of seven rolls, and a reel).[3]

Test Procedure

Inasmuch as the cloth from which mail pouches are made is of uniform quality, the sorting and grading required when mixed rags are used was unnecessary for the test material. The preliminary operations of cutting and dusting were employed to loosen the material and eliminate as much as possible of the objectionable foreign matter, such as dust and dirt. A number of cooks were subsequently made with different digesting agents and the resultant pulp was converted into paper by the usual commercial procedure. Details of the work follow.

(a) Caustic Soda Cook.—A portion of the cut and dusted waste was furnished to the rotary boiler and cooked in a solution of caustic soda, 5 per cent, based on the weight of the material as furnished, being used in the operation. The duration of the cooking was 7 hours and the temperature, 250 to 260 degrees fahrenheit.

The pulp from the cook was divided into two equal batches, each of which was washed, bleached, washed again, and beaten, to render suitable for the paper machine. One per cent of bleaching powder based on the weight of the dry material was added for the bleaching. Previous to the bleaching the washed pulp was bluish-gray in color but the bleached half-stuff was fairly white. During the beating operation the stock was sized with rosin size. No coloring matter was added. The two batches of stock were used consecutively for one machine run and the papers made therefrom are identified as (A) and (B), respectively. A representative portion of the paper from the latter half of the run was also tub-sized. No difficulty was experienced in the operation of the paper machine and the paper produced was well-formed.

(b) Lime and Soda Ash Cooks.—Lime and soda ash were next used as digesting agents. The percentages employed, based on the weight of the waste material as furnished, were 12 and 4, respectively. After the waste had been digested for one hour at from 70 to 80 degrees fahrenheit, the steam to the boiler was turned on and the temperature was raised to 250-260 degrees fahrenheit. This temperature was maintained during the remainder of the cook. The total cooking time was 16 hours.

As with the previous cook, the pulp removed from the boiler was divided into two equal amounts, each of which was washed, bleached, washed again, and beaten. The color of the unbleached pulp was more nearly white than that of the pulp from the caustic cook. The beating consisted of only a slight brushing to eliminate knots and shorten the fibers. One per cent of bleaching powder was added for the bleaching. Rosin size was added in the beating operation. The machine run was divided into two parts, (A) and (B), corresponding to the two lots of stock used. A representative portion of the paper from (B) was tub-sized.

A second lime-soda ash cook was also made. The conditions for the second cook were the same as those for the first, except the cooking time, which was 13¼ instead of 16 hours.

As for the preceding cooks, the resultant pulp was divided into two equal batches which were subsequently washed, bleached, washed again, and beaten. The pulp of this cook, however, was beaten with a view to producing strength in the finished sheet. No size was added to the stock and the paper made, therefore, was waterleaf. Two machine runs were made corresponding to the two batches of stock prepared. A representative portion from each run was tub-sized.

Test Results

The loss of material in the initial operations of cutting and dusting was 5 to 7 per cent. The measurements on the papers made from the pulps of the different cooks are given in the accompanying table. Machine run No. 641, (A) and (B), was for the two lots of stock prepared from the caustic soda cook; No. 640, (A) and (B), was for the first, and Nos. 653 and 655 were for the second, of the lime-soda ash cooks. A representative sample from each run was tub-sized. Measurements on papers made from new cotton duck (although not mail pouch material) and from sulphite wood pulps are included as a basis of comparison.

The rosin-sized paper of the first two runs, both the paper-machine and the tub-sized product, compares favorably with sulphite wood and a number of commercial bond papers. The purpose of these runs, Nos. 640 and 641, was more to determine whether clean paper could be made from the waste mail pouches than to obtain maximum strength in the papers produced.

The waterleaf sheet of runs Nos. 653 and 655 shows considerably greater strength than the paper of the previous runs. The tub-sized portions, although of less strength than the tub-

* Published by permission of the Director of the National Bureau of Standards of the U. S. Department of Agriculture.

[1] Paper Technologist, Bureau of Standards.

[2] Paper Maker, Bureau of Standards.

[3] Photographs of the beater, jordan, and fourdrinier machine are given in B. S. Tech. Paper No. 262, pp. 340-341.

MEASUREMENTS ON FINISHED PAPER

Machine Run No.	Weight, 25x40—500 lb.	Ratio of bursting strength to weight, Bursting strength pts.	Ratio of bursting strength to weight, 25x40—500 %	Thickness in.	Physical Tests: Folding endurance: Machine direction Double folds	Folding endurance: Cross direction Double folds	Tensile strength: Machine direction kg.	Tensile strength: Cross direction kg.	Tearing strength: Machine direction g.	Tearing strength: Cross direction g.	Chemical Tests: Ash %	Resin %	Glue %
641-A	59.0	27.0	45.7	0.0044	275	55	5.77	3.00	93.2	82.0	0.62	3.6	...
641-B	55.0	25.0	45.6	.0043	140	32	5.60	2.92	74.8	67.4	.67	3.5	...
641-B, tub-sized	55.4	35.3	63.7	.0038	220	95	5.79	2.92	84.8	78.8	.68	3.2	2.29
640-A	55.0	29.1	52.9	.0040	500	85	5.10	3.40	124.8	136.4	.60	3.0	...
640-B	58.0	27.3	47.3	.0042	290	115	4.70	2.70	120.0	133.6	.60	3.2	...
640-B, tub-sized	59.4	41.9	70.5	.0041	905	305	7.63	4.83	87.2	77.6	.50	3.1	2.40
653-A	55.3	35.1	63.5	.0040	2515	845	7.37	4.65	128.0	122.8	.11	none added	...
653-A, tub-sized	58.8	60.3	102.5	.0041	4065	2845	10.39	6.69	120.8	116.0	.28	none added	2.97
655-A	56.3	35.4	62.9	.0042	3030	575	7.49	4.25	116.0	110.8	.11	none added	...
655-A, tub-sized	58.5	59.9	102.5	.0040	3190	2200	10.58	6.18	100.0	98.0	.30	none added	2.96
Sulphite pulp (writing)[1]	54.3	32.2	59.3	.0037	855	545	..	...	61.4	54.0	.22	2.0	...
Rag (writing)[1]	61.6	34.4	55.8	.0044	3190	445	6.99	3.58	189.6	180.8	.41	1.1	...
Rag writing, tub-sized[1]	63.3	59.1	93.4	.0041	5348	3946	10.56	6.13	168.0	167.2	..	..	...

[1] Measurements on papers made from sulphite pulp and new rag (cotton duck) stock are included as a basis for comparison.

sized paper made from the new cotton duck, was comparable in strength with many of the high-grade bond papers on the market.

The increase in strength obtained by tub-sizing is dependent to some extent on the amount of glue absorbed by the paper. In the case of the rosin-sized sheets of the tests the percentage of glue taken up was 2.29 to 2.40 per cent, whereas the glue content for the waterleaf papers of the last two runs was about 3 per cent.

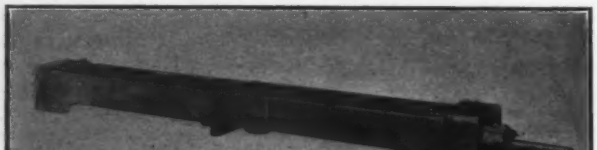
Conclusions

Semi-commercial papermaking tests were made on condemned mail pouches, declared unserviceable for postal use and macerated to permit of sale to the highest competitive bidder. A good grade of clean half-stuff was obtained from the material by the usual commercial papermaking processes. The paper produced was stronger than that made from sulphite wood stock and compared favorably with many of the high-grade bond and rag writing papers on the market.

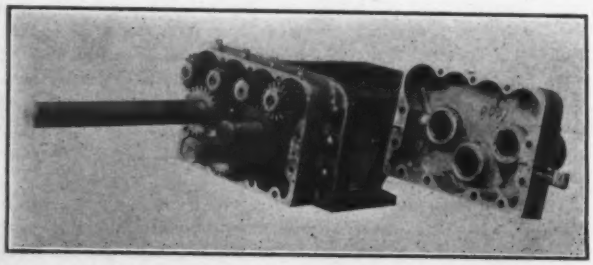
Waste mail pouches have unusual value for paper making in that the material is of one grade and free from the extraneous substances commonly found in rag stock. The rag stock ordinarily used for papermaking is a mixture of various kinds of rags. It must be carefully sorted and inspected to insure uniformity of quality and freedom from foreign materials such as buttons, hooks and eyes, etc. In using waste mail pouches these operations are practically eliminated and the consistent quality of the stock makes possible the production of uniform papers.

New Roller Suction Box

The Norwood Engineering Company, Florence, Mass., has acquired the United States manufacturing rights for a new roller suction box and after several months of development and refinement has produced a practical and satisfactory roller suction box which is already showing its economy and efficiency in some of the leading New England mills. The success of these first installations indicates the importance of this roller suction box to the paper industry through its ability to speed up production, give longer life to felts and wires, and its advantage to produce a better quality sheet and effect an important saving in power consumption.



NORWOOD NEW ROLLER SUCTION BOX



END VIEW WITH GEAR CASE REMOVED

The development of this roller suction box was originally undertaken by George Peebles of Newark, N. J. The manufacturing rights for the U. S. were taken over by the Norwood Engineering Company at a point where little more than the fact that the theory was correct had been shown. After many months of development and refinement, a practical and satisfactory box was produced and at the present time several installations have already been made in New England mills.

The Norwood Engineering Company has developed a positive sealing method and with this new box makes it possible to step up the amount of vacuum used and operate at high efficiency.

The seal under the outside rolls consists of a half bearing of a special material into which the rolls are held by atmospheric pressure. This construction gives a tight seal and yet the friction on the rolls is negligible.

The seals at the end of the box are so constructed that they are easily adjustible for different widths of the sheet and can be adjusted in a minute's time. The Norwood roller suction box also embodies many unique features, such as a completely enclosed oil tight case for the driving gears, and adjustable roll bearings, etc., and is a workmanlike machine which is a credit to the Norwood organization.

Two-Sidedness in Color of Paper

SPECIAL INQUIRY NO. 74

A Member writes: "In making deep colors of book and writing paper, where bleached wood pulps are used, I would like to know how to overcome the tendency of the sheet to have a different shade on the wire side on account of the suction drawing the color out when the paper is made with suction rolls; also if there are any particular dyestuffs that can be used that have a less tendency than others in making the sheet two-sided. Any information will be much appreciated."

As this is an eminently practical problem in paper manufacture it is expected that a large number of responses will be received. Transcripts of the replies in blank will be distributed in the form of a special report to all those who participate in discussion. Send replies to

W. G. MACNAUGHTON, *Secretary*, TAPPI,
18 E. 41st street, New York.

United States Patents on Papermaking

Issued During January, 1927

Compiled by Clarence J. West from Official Gazette of U. S. Patent Office

Printed copies of patents are furnished by the Commissioner of Patents, Washington, D. C., at 10 cents each.

1,613,119. Method and means for coating tubes internally. Clarence M. Nelson, assignor to National Paper Products Co., San Francisco, Calif. Jan. 4, 1927. (Cl. 93—80.)

1,613,132. Machine for preparing box blanks. Leland S. Rosener, assignor to The Paraffine Companies, Inc., San Francisco, Calif. Jan. 4, 1927. (Cl. 93—36.)

1,613,133. Paper receptacle. Leland S. Rosener, assignor to The Paraffine Companies, Inc., San Francisco, Calif. Jan. 4, 1927. (Cl. 229—26.)

1,613,179. Insulating paper for electric wires and cables. John R. Long. Jan. 4, 1927. (Cl. 92—39.)

1,613,264. Apparatus and method for applying wires to removable fourdriniers. Earl E. Berry, assignor to Beloit Iron Works. Jan. 4, 1927. (Cl. 92—44.)

1,613,839. Apparatus for making paper pulp. Wm. S. Lowe. Jan. 11, 1927. (Cl. 83—75.)

1,613,915. Envelope machine. Jacob Stiriss. Jan. 11, 1927. (Cl. 93—61.)

1,614,025. Composition of matter derived from black liquor and process of dealing with the same. Lester C. Conner. Jan. 11, 1927. (Cl. 106—22.) (Solid derivative adapted to be heat-molded.)

1,614,142. Segregated drive for papermachines and the like. Wilbur L. Merrill, assignor to General Electric Co. Jan. 11, 1927. (Cl. 172—293.)

1,614,162. Wood grinder. Wilhelm Stiel, assignor to Westinghouse Electric and Mfg. Co., New York City. Jan. 11, 1927. (Cl. 83—75.)

1,614,205. Paper folding box. Wm. Charles Miller, assignor to The Interstate Folding Box Co., Middletown, Ohio. Jan. 11, 1927. (Cl. 206—44.)

1,614,433. Tension apparatus for calenders. Carmon A. Myers, assignor to The Firestone Tire and Rubber Co., Akron, Ohio. Jan. 11, 1927. (Cl. 91—17.)

1,614,486. Beating engine. James T. Murphy and Edward J. Raney, assignors of one-third to Chicago Mill and Lumber Co., Chicago, Ill. Jan. 18, 1927. (Cl. 32—23.)

1,614,490. Process of making carbon paper. George W. Poorman, assignor to Kee Lox Mfg. Co., Rochester, N. Y. Jan. 18, 1927. (Cl. 91—68.)

1,614,522. Box-making machine. Orlando A. Clark and George P. Anderson. Jan. 18, 1927. (Cl. 93—41.)

1,614,549. Stencil sheet and stencil adapted for use in duplicating. Sigmund Gestetner, assignor to D. Gestetner, Ltd., London, Eng. Jan. 18, 1927. (Cl. 41—38.5.)

1,614,611. Paper and process of coating the same. Gerhardt E. Grimm, assignor to Westfield River Paper Co., Russell, Mass. Jan. 18, 1927. (Cl. 91—68.)

1,614,618. Sheet abrasive material. Henry Joseph, assignor to United States Sand Paper Co., Williamsport, Pa. Jan. 18, 1927. (Cl. 51—279.)

1,614,643. Tube-forming machine. Wm. E. Barlow, assignor to Dairy Equipment and Container Co., Dover, Del. Jan. 18, 1927. (Cl. 93—79.)

1,614,694. Paper drier. Charles W. Shartle and Adam E. Bridge, assignors to The Shartle Bros. Machine Co., Middletown, Ohio. Jan. 18, 1927. (Cl. 34—48.)

1,614,826. Beater-roll raiser. Harry C. Claflin. Jan. 18, 1927. (Cl. 92—24.)

1,614,843. Carton. Reginald B. Meller. Jan. 18, 1927. (Cl. 229—45.)

1,614,869. Art of treating pasteboard. James Morris Brown. Jan. 18, 1927. (Cl. 91—70.) (Impregnation with wax.)

1,614,972. Carton. Arthur W. Scotcher. Jan. 18, 1927. (Cl. 229—29.)

1,615,102. Method of utilizing waste sulphite cellulose lye. Carl Gustav Schwalbe. Jan. 18, 1927. (Cl. 44—1.)

1,615,210. Process and device for drying paper and the like fibrous webs. Eduard v. Asten. Jan. 25, 1927. (Cl. 34—48.)

1,615,343. Treatment of cellulose. Fredrich Olsen and Henry A. Aaronson. Jan. 25, 1927. (Cl. 260—10.)

1,615,374. Mechanism for working pulpous material. Adelbert Paul Gerhardt, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—55.) 43.)

1,616,703. Method for cooling and utilizing the heat content of relief gas from sulphite digesters. George A. Richter, assignor to Brown Co., Berlin, N H. Feb. 8, 1927. (Cl. 23—131.)

1,616,724. Coating machine. Herman G. Weber, assignor to American Lakes Paper Co., Chicago, Ill. Feb. 8, 1927. (Cl. 91—50.)

1,616,849. Moistureproof article. Raphael S. Fleming, assignor to Merrell-Soule Co., Syracuse, N. Y. Feb. 8, 1927. (Cl. 91—68.)

1,616,901. Process of making multiply waterproof sheets. Lester Kirschbraun. Feb. 8, 1927. (Cl. 92—41.)

1,616,902. Process of making multiply waterproof sheets. Lester Kirschbraun. Feb. 8, 1927. (Cl. 92—42.)

1,616,903. Process and apparatus for making paper. Lester Kirschbraun. Feb. 8, 1927. (Cl. 92—41.)

1,616,904. Emulsion and method of producing same. Lester Kirschbraun. Feb. 8, 1927. (Cl. 134—1.)

1,616,921. Waterproof composition and process in making same. Chester E. Rahr and Lester Kirschbraun. Feb. 8, 1927. (Cl. 92—41.)

1,616,963. Coated paper exhibiting printed matter. Winthrop L. Carter, assignor to Nashua Gummed and Coated Paper Co., Nashua, N. H. Feb. 8, 1927. (Cl. 91—67.9.)

1,617,386. Stenciling. Sydney W. Fuerth, assignor to Underwood Typewriter Co., New York City. Feb. 15, 1927. (Cl. 41—38.6.)

1,617,419. Web-feeding mechanism. James K. Robertson and Samuel Duerden. Feb. 15, 1927. (Cl. 271—2.6.) Bag making.

1,617,495. Process of combining cellulose and rubber. Sidney A. Ogden. Feb. 15, 1927. (Cl. 260—10.)

1,617,572. Slitting and winding machine. James A. Cameron, assignor to Cameron Machine Co., Brooklyn, N. Y. Feb. 13, 1927. (Cl. 242—66.)

1,617,673. Nozzle for papermaking machines. Mathias Dezurik. Feb. 15, 1927. (Cl. 299—106.)

1,617,704. Process and apparatus for moistening paper. Walter Colditz and Georg Thommel, assignors to the Firm Koholyt Aktiengesellschaft, Berlin, Germany. Feb. 15, 1927. (Cl. 91—18.)

1,617,734. Machine for making paper. Alonzo Aldrich. Feb. 15, 1927. (Cl. 92—43.)

1,617,767. Papermaking machine. Thomas T. Rogan and Edward B. Wright. Feb. 15, 1927. (Cl. 92—44.)

1,617,945. Coated paper and process of making the same. Gerhardt E. Grimm, assignor to Westfield River Paper Co., Russell, Mass. Feb. 15, 1927. (Cl. 91—68.)

1,617,946. Tinted burnished metal-coated paper. Gerhardt E. Grimm, assignor to Westfield River Paper Co., Russell, Mass. Feb. 15, 1927. (Cl. 91—68.)

1,618,041. Bag making and printing machine. True M. Avery, assignor to Union Bag and Paper Corpn., Hudson Falls, N. Y. Feb. 15, 1927. (Cl. 93—26.)

1,618,146. Machine for forming products from pulpy mass. Hillhouse Buel. Feb. 15, 1927. (Cl. 92—54.)

1,618,231. Bursting-strength tester for sheet material. Milton O. Schur, assignor to Brown Co., Berlin, N. H. Feb. 22, 1927. (Cl. 265—14.)

1,618,263. Papiermache product and method of making the same. Robert Beardsley. Feb. 22, 1927. (Cl. 154—2.)

1,618,542. Apparatus and method for packaging paper. Wm. C. Ludwig, assignor to The Mead Pulp and Paper Co., Dayton, O. Feb. 22, 1927. (Cl. 206—60.)

1,618,572. Cellulose product and method of making same. Horace H. Clark, assignor to Clark Fibre Products Corp. Feb. 22, 1927. (Cl. 154—34.)

1,618,711. Paper folding machine. John O. Hunt, assignor to Independent Paper Mills, Inc., Brooklyn, N. Y. Feb. 22, 1927. (Cl. 270—94.)

1,618,712. Banding machine. John O. Hunt, assignor to Independent Paper Mills, Inc., Brooklyn, N. Y. Feb. 22, 1927. (Cl. 93—93.)

1,618,787. Method of making envelopes. Jay G. Swab, assignor to Tension Envelope Co., Inc., New York City. Feb. 22, 1927. (Cl. 93—61.)

1,618,931. Process for producing photographic papers for making prints from tracings. Hermann Kammerer. Feb. 22, 1927. (Cl. 95—6.)

1,619,004. Process and apparatus for the production of wood pulp. Christian Jonathan Sternkopf. Mar. 1, 1927. (Cl. 83—75.) (Mechanical.)

Issued During February, 1927

1,616,014. Box. Harrison B. Walter, assignor to Container Corporation of America, Chicago, Ill. Feb. 1, 1927. (Cl. 229—33.)

1,616,062. Method of waterproofing vulcanized fiber. Emil E. Novotny and Charles J. Romieux, assignors to John Stogdell Stokes, Huntingdon Valley P. O., Pa. Feb. 1 ,1927. (Cl. 91—70.)

1,616,138. Decorative paper. John Porter, assignor to Arnold Print Works, North Adams, Mass. Feb. 1, 1927. (Cl. 41—36.)

1,616,211. Method and apparatus for making paper having the appearance of hand-made paper. James H. A. Armstrong, assignor to American Writing Paper Co. Feb. 1, 1927. (Cl. 92—42.)

1,616,222. Fourdrinier wire screen. Herman R. Harrigan, assignor to American Writing Paper Co. Feb. 1, 1927. (Cl. 92—39.)

1,616,226. Pulp-molding apparatus. Felix Louiset, assignor to Vacuum Pulp Products Corpn., New York City. Feb. 1, 1927. (Cl. 92—54.)

1,616,363. Festooning rack. John R. Gammeter, assignor to The B. F. Goodrich Co., New York City. Feb. 1, 1927. (Cl. 271—2.2.)

1,616,382. Drive for papermaking machines. Bernard A. Malkin. Feb. 1, 1927. (Cl. 34—48.)

1,616,383. Driving mechanism for paper-drying machines. Bernard A. Malkin. Feb. 1, 1927. (Cl. 34—48.)

1,616,535. Envelope and the like and carrier thereof. Theodore H. Krueger. Feb. 8, 1927. (Cl. 229—68.)

1,616,565. Machine for scoring, cutting, or otherwise treating cardboard or the like. Nicholas P. Andrew. Feb. 8, 1927. (Cl. 271—54.)

1,616,651. Lath board and method of making the same. Silas M. Ford. Feb. 8, 1927. (Cl. 72—116.)

1,616,652. Lath board. Silas M. Ford. Feb. 8, 1927. (Cl. 72—116.)

1,616,677. Paper box and the like. Samuel Bergstein, assignor to The Interstate Folding Box Co., Middletown, Ohio. Feb. 8, 1927. (Cl. 206—44.)

1,616,678. Paper box and the like. Samuel Bergstein, assignor to The Interstate Folding Box Co., Middletown, Ohio. Feb. 8, 1927. (Cl. 229—Co., Pittsburgh, Pa. Mar. 29, 1927. (Cl. 83—75.)

1,622,709. Cartoning machine. Harry L. Evans and George I. Hohl. Mar. 29, 1927. (Cl. 93—6.)

Issued During March, 1927

1,615,375. Method of producing coated cores. Frank Gill, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—55.)

1,615,381. Method and apparatus for coating cores. Wm. Fuller Hosford, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,387. Method of and apparatus for coating cores. Helgo Wiggo Jespersen, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,390. Method and apparatus for coating cores. John Shirley Little, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,391. Machine for forming sheets of pulpous material. John Shirley Little, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,392. Method of and apparatus for making fibrous articles. John Shirley Little, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,393. Method for coating cores. John Shirley Little, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,394. Apparatus for coating cores. John Shirley Little, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,395. Method of and apparatus for coating cores. John Shirley Little, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,416. Method of coating cores. Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—55.)

1,615,417. Machine for coating cores. Howard

George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—55.)

1,615,418. Method of and apparatus for coating cores. Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—55.)

1,615,419. Method and apparatus for coating cores. Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—55.)

1,615,420. Machine for coating cores. Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—55.)

1,615,421. Method and means for coating cores: Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—55.)

1,615,422. Method of and apparatus for coating cores. Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,423. Method of and apparatus for coating cores. Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—55.)

1,615,424. Method and apparatus for producing fibrous articles. Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,425. Coated core. Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 173—264.)

1,615,426. Mechanism for working pulpous material. Howard George Walker and Albert Thomas March, assignors to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,428. Coated core and method of and apparatus for coating same. Frederic Wilson Willard, assignor to Western Electric Co., Inc., New York City. Jan. 25, 1927. (Cl. 92—41.)

1,615,631. Filler carton closing and sealing machine. Wallace D. Kimball, Arthur E. Rideout and Malcolm McFaull, assignors to Standard Sealing Equipment Corporation, New York City. Jan. 25, 1927. (Cl. 93—6.)

1,615,773. Cardboard and like box. Ernest Robinson. Jan. 25, 1927. (Cl. 206—44.)

1,619,027. Coated paper and process of coating paper. Wm. Wallace McLaurin. Mar. 1, 1927. (Cl. 91—70.)

1,619,081. Strip-gummed paper and process of making same. Wm. W. McLaurin, assignor to McLaurin-Jones Co., Brookfield, Mass. Mar. 1, 1927. (Cl. 91—68.)

1,619,151. Log-barking apparatus. John Moravec. Mar. 1, 1927. (Cl. 144—208.)

1,619,168. Papermaking machine. Charles W. Valentine, assignor to The Bagley and Sewall Co., Watertown, N. Y. Mar. 1, 1927. (Cl. 92—44.)

1,619,207. Machine for forming blanks for corrugated-paper boxes. James F. Jones, assignor to The Consolidated Paper Co., Monroe, Mich. Mar. 1, 1927. (Cl. 93—58.)

1,619,214. Machine for punching and reenforcing blanks. Albert Olgay, assignor to Gaw O'Hara Envelope Co., Chicago, Ill. Mar. 1, 1927. (Cl. 218—15.)

1,619,615. Wrapper-making machine. Berg Heinrichs, assignor to Midwest Box Co., Chicago, Ill. Mar. 1, 1927. (Cl. 93—1.)

1,619,682. Stock regulator for paper-making machines. Wm. J. Sheridan. Mar. 1, 1927. (Cl. 92—46.)

1,619,711. Apparatus for feeding folded paper tubes or the like. Elmer Engstrom. Mar. 1, 1927. (Cl. 271—29.)

1,619,848. Apparatus for working paper, carton and the like materials. Henri Bobst, assignor to Bobst and Fils, Societe Anonyme, Laussanne, Switzerland. Mar. 8, 1927. (Cl. 271—45.)

1,620,037. Paper-making machine. Frank A. Peschl. Mar. 8, 1927. (Cl. 92—38.)

1,620,174. Carton. Joshua Wagner. Mar. 8, 1927. (Cl. 229—3.5.)

1,620,239. Art of paper-ware manufacture. Harry Bridgman Smith, assignor to Lightship Cloth Board Corpn., Brooklyn, N. Y. Mar. 8, 1927. (Cl. 93—1.)

1,620,538. Method of making composition articles. Wm. Joseph Gaven. Mar. 8, 1927. (Cl. 154—2.) (Ornamental articles of paper.)

1,620,860. Process and apparatus for making paper or the like. Carlton H. Allen. Mar. 15, 1927. (Cl. 92—46.)

1,621,049. Process of making paper bags. Daniel Appel, assignor to The Cleveland-Akron Paper Bag Co., Cleveland, Ohio. Mar. 15, 1927. (Cl. 93—35.)

1,621,147. Manufacturing hollow bodies from pulp fiber. Peter Ernst Winnertz. Mar. 15, 1927. (Cl. 92—54.)

1,621,281. Mold and process of making the same. Wm. M. Sheffield. Mar. 15, 1927. (Cl. 92—54.)

1,621,399. Paper sizing. Judson A. Decew, assignor to Process Engineers, Inc., New York City. Mar. 15, 1927. (Cl. 92—21.)

1,621,401. Pulp molding machine. Fernand Foy. Mar. 15, 1927. (Cl. 92—57.)

1,621,593. Pulp molding machine. Felix Louisot, assignor to Vacuum Pulp Products Corpn., New York City. Mar. 22, 1927. (Cl. 92—54.)

1,621,671. Pulp forming machine. Charles J. Keenan and George H. Kirsch, assignors to Alaska Pulp and Paper Co. Mar. 22, 1927. (Cl. 92—57.)

1,621,791. Process of making waterproof composition and product produced thereby. Lester Kirschbraun. Mar. 22, 1927. (Cl. 92—21.)

1,621,874. Dandy roll support for paper machines. Ernest N. Daulton. Mar. 22, 1927. (Cl. 92—48.)

1,621,888. Process for making paper. Lester Kirschbraun. Mar. 22, 1927. (Cl. 92—41.) (Grease repellent multiply sheet.)

1,622,474. Process of effecting agglomeration in paper pulp and other suspensions and mixtures. Karl Sveen. Mar. 22, 1927. (Cl. 92—40.)

1,622,496. Cellulose-fiber product treated with a size embodying soy-bean flour and process of making the same. Glenn Davidson, Hugh F. Ripper, Charles N. Cone, Irving F. Laucks and Harry P. Banks, assignors to I. F. Laucks, Inc., Seattle, Wash. Mar. 29, 1927. (Cl. 92—21.)

1,622,624. Regulator system for pulp grinders. Wm. M. Bradshaw and Walter G. Mylius, assignors to Westinghouse Electric and Manufacturing

February Pulp and Paper Production Statistics

The February production of paper in the United States as reported by identical mills to the American Paper and Pulp Association and cooperating organizations, showed a decrease of 2 per cent as compared with the January production, following a 3 per cent increase in January over December, according to the Association's Monthly Statistical Summary of Pulp and Paper Industry. All grades showed a decrease in production as compared with January, with one exception.

The Summary is prepared by the American Paper and Pulp Association as the central organization of the paper industry, in cooperation with the Binders Board Manufacturers Association, Converting Paper Mills Association, Cover Paper Association, News Print Service Bureau, Wrapping Paper Manufacturers Service Bureau, Writing Paper Manufacturers Association and Paperboard Industries Association.

The figures for February for same mills as reported in January are:

Grade	Number of Mills	Production Net Tons	Shipments Net Tons	Stocks on Hand End of Month, Net Tons
News print	71	121,318	119,076	18,426
Book	63	90,852	91,251	45,428
Paperboard	110	175,344	175,207	51,396
Wrapping	78	49,594	49,466	39,461
Bag	24	11,562	12,380	6,502
Fine	86	27,251	28,687	40,799
Tissue	49	14,439	14,967	15,532
Hanging	7	5,656	5,619	1,035
Felts	14	8,875	8,399	3,250
Other Grades	62	21,005	21,266	16,551
Total—All Grades		525,896	526,318	238,380

During the same period, domestic wood pulp production decreased 10 per cent, this decrease being distributed over all grades, with two exceptions. The February totals (mills identical with those reporting in January) as reported by the American Paper and Pulp Association, are as follows:

Grade	Number of Mills	Production Net Tons	Used Net Tons	Shipments Net Tons	Stocks on Hand End of Month, Net Tons
Ground Wood Pulp	98	82,409	81,977	2,477	117,065
Sulphite News Grade	39	39,454	36,593	2,190	9,832
Sulphite Bleached	22	23,120	19,726	3,663	2,980
Sulphite Easy Bl.	7	4,628	3,663	870	665
Sulphite Mitscherlich	6	6,922	5,774	1,012	767
Sulphate Pulp	10	15,528	14,225	1,098	2,689
Soda Pulp	11	16,815	12,421	4,444	3,149
Other than Wood Pulp	2	9	.....	.....	49
Total—All Grades		188,885	174,379	15,754	137,196

March Pulp and Paper Production Statistics

The March production of paper in the United States as reported by identical mills to the American Paper and Pulp Association and cooperating organizations, showed an increase of 13 per cent as compared with the February production following a 2 per cent decrease in February over January, according to the Association's Monthly Statistical Summary of Pulp and Paper Industry. All grades showed an increase in production as compared with February.

The Summary is prepared by the American Paper and Pulp Association as the central organization of the paper industry, in cooperation with the Binders Board Manufacturers Association, Converting Paper Mills Association, Cover Paper Association, News Print Service Bureau, Wrapping Paper Manufacturers Service Bureau, Writing Paper Manufacturers Association and Paperboard Industries Association.

The figures for March for same mills as reported in February are:

Grade	Number of Mills	Production Net Tons	Shipments Net Tons	Stocks on Hand End of Month, Net Tons
News print	71	133,731	129,451	22,744
Book	64	99,664	97,479	47,802
Paperboard	111	203,609	201,901	53,098
Wrapping	76	56,393	54,771	39,811
Bag	23	13,244	13,643	6,105
Fine	73	31,276	32,462	39,613
Tissue	54	16,500	16,169	15,863
Hanging	9	7,214	7,283	1,080
Felts	13	10,214	10,056	3,408
Other Grades	61	24,603	23,881	17,259
Total—All Grades		596,448	587,096	246,783

During the same period, domestic wood pulp production increased 21 per cent, this increase being distributed over all grades. The March totals (mills identical with those reporting in February) as reported by the American Paper and Pulp Association, are as follows:

Grade	Number of Mills	Production Net Tons	Used Net Tons	Shipments Net Tons	Stocks on Hand End of Month, Net Tons
Ground Wood Pulp	92	108,692	93,954	3,005	128,920
Sulphite News Grade	38	44,362	40,954	3,232	10,008
Sulphite Bleached	23	27,114	22,656	3,952	3,492
Sulphite Easy Bl.	7	5,049	3,707	1,080	927
Sulphite Mitscherlich	6	7,379	6,314	879	953
Sulphate Pulp	10	17,555	15,956	1,509	2,779
Soda Pulp	11	18,376	13,973	4,222	3,330
Other than Wood Pulp	2	14	35	.....	28
Total—All Grades		228,541	197,549	17,879	150,437

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Paper Making Industry

Clarence J. West, Chairman

Machinery

Machine-Glazed Paper. J. M. Ward assignor to Detroit Sulphite Pulp and Paper Company. U. S. pat. 1,598,793, Sept. 7, 1926.—A glazed effect is produced on one side of paper by a Yankee drying cylinder and the rough side is finished by the progressive action of pressure rolls while drying on the cylinder.—A.P.-C.

Method of and Apparatus for Making Paper Having Portions of Different Thicknesses. R. B. Daniels. U. S. pats. 1,587,699 and 1,587,700, June 8, 1926.—Portions of the sheet are made of less thickness than the main portion of the sheet by securing to the slice one or more obstructions in the form of a U-shaped plate, which is bolted to the slide in such a manner as to provide for longitudinal and vertical adjustment. In order to prevent the stock from flowing from the thicker portions to the thinner portions of the sheet compressed air is blown on top of the thinner portions of the web from a longitudinal pipe with a number of openings arranged logitudinally along the under side. On both sides of the pipe and extending longitudinally through practically its entire length are side wall or curtains which project slightly into the pulp to form a seal and prevent the escape of air along the sides.—A.P.-C.

Suction Device for Papermaking Machines. R. B. Heys assignor to St. Anne's Board Mill Co., Ltd. U. S. pat. 1,567,948, Dec. 29, 1925.—A band or belt of rubber, or other suitable material, is arranged beneath the wire and is carried by rolls in such a manner that it will travel with the wire on which the wet web is carried towards the dry end of the machine. The band is grooved or channeled transversely to its line of travel; and as it travels the open ends of those grooves or channels which successively come beneath the wire will come opposite the mouths of passages (one on each side of the band) connected with suction devices. Air and moisture is thus drawn through the pulp and wire into the grooves as they successively come into communication with the suction device; and the moisture thus drawn out is retained in the grooves until it is discharged when the ends of the grooves leave the position opposite the suction devices.—A.P.-C.

Fourdrinier Papermachine. A. Aldrich. U. S. pat. 1,589,921, June 22, 1926.—In order that the table rolls may be shaken without shaking the breast roll, the table rolls are mounted on side rails, which are in turn mounted on the main side frame members through the medium of vertically arranged spring members, preferably made of wood, to give the desired spring-like action.—A.P.-C.

Frameless Type of Fourdrinier Papermachine. A. Aldrich assignor to Beloit Iron Works. U. S. pat. 1,595,593, Aug. 10, 1926.—The breast roll and the table rolls are supported independently and can be shaken independently.—A.P.-C.

Fourdrinier Papermachine. J. D. Tompkins. U. S. pat. 1,599,503, Sept. 14, 1926.—The web is carried through the presses between two felts, and the upper felt of the first press comes into contact with the fourdrinier wire a little ahead of the suction boxes, so as to hold the sheet flat, and remains in contact with the upper surface of the moist web on the wire and passes between the upper and lower couches along with the web.—A.P.-C.

"No-Deckle" Device. S. C. Wentz assignor to P. H. Glatfelter Co. U. S. pat. 1,603,226, Oct. 12, 1926.—The device consists of a triangular brass bar and a special clamping device to hold the rubber strip or edge ruler in its proper position relative to the wire. The length of the triangular brass bars varies according to the length of the wire, the amount of water used on the machine, and the degree of freeness or slowness of the stock. The rubber strip or edge ruler is held in such a position as to have a tapered effect from the apron to the end of the brass bar. Under the apron and slices it lies on the wire about one inch wide, then tapers down to just merely touching the wire at the other end of the brass bar. On old machines equipped with the usual deckle frames and one or two slices, the device is secured to the under part of the deckle frame and extends from the beginning of the deckle frame to 5 to 8 feet beyond. The apron cloth is put on over the edge ruler and thus makes a watertight joint; no spray is used to assist in forming the edge. When used in connection with the Voith inlet, the rubber and brass bar extend back far enough to allow the apron of the inlet to rest on the rubber strip or edge ruler.—A.P.-C.

Fiber-Laying Roll. C. Barlow and E. R. Clapp. U. S. pat. 1,600,529, Sept. 21, 1926.—A previous patent (No. 1,590,875, June 29, 1926) provides for a small roll, covered with soft rubber, mounted so as to exert slight pressure on the web at the point where the suction action of the couch roll begins to become effective; and similar rolls may be placed at the suction boxes. The present invention provides for a balancing mechanism for the fiber-laying roll, to regulate the pressure of the latter on the paper web.—A.P.-C.

Combined Fourdrinier and Cylinder Machine. H. J. Meader assignor to the Flintote Co. U. S. pat. 1,600,689, Sept. 21, 1926.—The sheet is formed on a cylinder mold divided into a number of compartments by means of radial partitions, the mold being almost completely immersed in the stock vat. Instead of being covered with the usual cylinder wire, the cylinder mold has what practically amounts to a fourdrinier wire, which wraps around that portion of the mold which is immersed in the stock, then passes over table rolls and suction boxes, around a lower couch roll and back again to the cylinder mold.—A.P.-C.

Laying Roll for Fourdrinier Papermachines. C. Barlow and E. R. Clapp. U. S. pat. 1,590,875, June 29, 1926.—Suction acts to a certain extent to disturb the felting of the fibers because it draws the fibers towards the openings in the wire, thus bunching the fibers and up-ending some of them. If slight pressure is brought to bear on the web just at the point where the suction action of the couch roll begins to become effective, the fiber structure becomes sufficiently firmly set to prevent disturbance of the fiber structure. This is obtained by means of a relatively small iron roll, covered with soft rubber about 120 plastometer density, mounted so as to be rotatable by direct contact with the wire and web. Similar rolls may be placed at the suction boxes. It is claimed that this roll hardens and compacts the sheet, permitting the machine to run at a given speed with greater operating efficiency, allowing a higher vacuum to be carried, and giving a higher finish to the sheet as it comes from the machines.—A.P.-C.

Suction Cylinder for Paper or Board Machines. R. B. Heys assignor to St. Anne's Board Mill Co., Ltd. U. S. pat. 1,591,921, July 6, 1926.—The invention relates to suction rolls having perforations communicating with longitudinal channels extending from end to end of the roll, the channels communicating in turn with a recess in a non-rotatable end-cover at one or both ends of the cylinder. The invention consists mainly in providing means whereby any liquid which may have remained in the longitudinal channels after the latter have passed the recess in the end-cover is caught and retained in the channel until by further

rotation the channels are brought into communication either with the same or with a second recess into which the liquid flows by gravity and is discharged through a suitable outlet.—A.P.-C.

Dandy Roll. T. J. Marshall & Co., Ltd. Eng. pat. 256,035.—The wires of these improved rolls are supported by a wire frame of zig-zag or sinuous construction. The wires are braced at intervals where they touch. The arrangement greatly minimizes tendency to stretch or slacken.—A.P.-C.

Felt Cleaner. E. H. Lansing, Jr. and J. R. Rehfuss. U. S. pat. 1,600,415, Sept. 21, 1926.—A nozzle adapted to deliver water under pressure in a chisel-like jet is mounted so as to travel back and forth above the lower reach of the felt.—A.P.-C.

Doctor for Papermaking Machines. F. W. Vickery assignor to Vickery, Ltd., Inc. U. S. pat. 1,594,284, July 27, 1926.—The doctor comprises a flexible doctor blade of such a nature and so supported that its edge will remain closely applied to the roll throughout its length in spite of irregularities in the surface or radius of the roll, in combination with a seal or packing, making a watertight joint with the blade throughout its length, so as to force the water removed from the roll to escape longitudinally of the doctor blade to the sides of the machine. To secure the desired close contact between the doctor blade and the roll the doctor blade must not only be flexible, but also it must be supported from the rigid carrier by resilient means (preferably consisting of a large number of parallel spring fingers) which permit it to move relatively to the carrier in following the irregularities of the roll. A complete doctor ready for attachment to an existing machine will usually comprise a stiff doctor carrier adapted to be secured transversely of the machine adjacent the roll, a continuous flexible doctor blade resiliently supported from the carrier, and a packing strip also carried from the carrier in contact with the blade throughout the greater part of its length. In new machines the usual pivoted doctor carriage can be modified to support a flexible doctor blade resiliently, and to permit of a watertight joint being made between the blade and the carriage.—A.P.-C.

Cylinder Papermaking Machine. W. S. Crandell. U. S. pat. 1,589,120, June 15, 1926.—The stock is deposited on the forming surface of a cylinder rotating in a dry path and not immersed in a vat containing the stock as heretofore. To this end there is provided a central stationary tube having a longitudinal opening in its surface at a part of the upper portion. Rotating around this tube is a cylindrical mold having a series of compartments formed by vanes extending inwardly from the periphery and adjacent to the forming surface of the mold is a connection for feeding stock to it, said connection being in line with the opening in the surface of the stationary tube. Rotation of the mold allows the stock to accumulate on its forming surface, and the vanes act to direct the exhaust water to the stationary tube without permitting it to pass to other parts of the mold; i. e., the vanes or compartments act as a cut-off valve.—A.P.-C.

Cylinder Mold for Papermaking Machines. C. W. Crandell. U. S. pat. 1,589,119, June 15, 1926.—The mold is of spiderless construction and has the end heads formed integrally with the body. Longitudinal bars arranged near the periphery of the cylindrical portion and extending between the heads from one end of the cylinder to the other are also formed integrally with the body; and they constitute ribs or vanes projecting inwardly from the surface, but not in a radial direction, and they act as baffle plates to prevent the water in the interior of the cylinder mold from reacting outwardly. Surrounding the cylindrical portion is the usual forming surface, built up of coarse wire and fine-mesh wire. This form of mold is particularly suited for the type of cylinder machine described in U. S. pat, 1,589,120 (preceding abstract), but can also be used on other types, with which it allows of operating at higher speeds.—A.P.-C.

Cylinder Papermachine. V. D. Simons. U. S. pat. 1,594,473, Aug. 3, 1926.—This is essentially a combination of a cylinder and a fourdrinier machine, in which the forming wire passes around the forming cylinder mold, then over table rolls and suction boxes and between couch rolls. The details of construction of the vat which are described in the specifications are designed to ensure simultaneous movement of the cylinder and of the stock with means for regulating the relative speeds of these movements.—A.P.-C.

Steam Distributing Device for Paper Driers. W. B. Fulton. U. S. pat. 1,594,718, Aug. 3, 1926.—The steam inlet pipe extends axially into the drier roll practically from end to end, and is provided with three valves, one towards either end and the third in the middle, each of which is provided with a slidable shutter connected to a rod parallel to the pipe. The shutters have apertures adapted to register with ports in the valves; and the relation of the shutter at one end of the rod to the corresponding ports in the valve at that end is just the opposite from that of the shutter at the other end of the rod to its corresponding valve, so that when one of the valves is open full the other is completely closed, and vice versa. The shutters of the two end valves are actuated by longitudinal movement of the rod supporting them, while the shutter of the middle valve is actuated by rotation of the valve. To remove the air and condensate there is provided a drain line extending into the drier on the line of its axis with depending branches, each provided with a scoop or pan-shaped receptacle. The latter are pivoted on the free ends of the depending branch pipes in such a manner as to permit the forward edges of the scoops to contact with the drier and thus cause any water in the bottom of the drier to be taken up by the scoops.—A.P.-C.

Removing Moisture from Pulp. E. E. Tasker. Eng. pat. 257,449.—This improved method of removing moisture from pulp, paper, strawboard, etc., consists in the application of superheated steam direct. The steam, at low or medium pressure, impinges on the paper in jets from narrow channels or perforated pipes rotatably mounted in order that the jets of steam meet the paper at any required angle. Screens provided with pipes serve to remove the water abstracted from the pulp or paper and deliver it to some other part of the apparatus, for boiler feed or process work, thus effecting economy of heating units.—A.P.-C.

Relation of Drying Ventilation and Operating Costs. R. Skagerberg. Paper Mill 49, No. 45, 6, 8 (Nov. 6, 1926).—Discussion of the importance of proper ventilation in paper drying, bringing out the advantages of the Sirocco Cross Current System over the no-hood system and the overhead exhaust hood system.—A.P.-C.

Paper Drying Process. Anon. Paper Trade J. 83, No. 21, 43-44 (Nov. 18, 1926).—Description of U. S. pat. 1,573,297, of Feb. 16, 1926, to E. A. Briner and H. J. Guild, consisting essentially in drying paper on the usual drier rolls up to the critical moisture percentage, beyond which mechanical constraint or tension causes a marked progressive decrease in strength; and continuing the drying beyond this point with the paper free to take up its own form and dimensions, e. g., in the well-known festoon drier such as used for coated paper.—A.P.-C.

Vacuum Paper Drier. O. Minton. U. S. pats. 1,595,235 to 1,595,240, inclusive, and 1,595,473 to 1,595,492, inclusive, Aug. 10, 1926.—These patents are concerned with the well-known Minton vacuum paper drier, and cover various features of the apparatus and of the process of drying.—A.P.-C.

Paper Drier. A. E. Broughton. U. S. pat. 1,602,644, Oct. 12, 1926.—A stationary pipe for the withdrawal of condensate extends axially through the steam inlet passage and dips down to the bottom of the drier. An annular baffle is mounted on the withdrawal pipe at a point just inside the drier, so that it directs the inflowing steam radially against the inner walls of the drier.—A.P.-C.

Device for Threading Paper Through Paper Machine Driers. H. G. Cram, assignor to Great Northern Paper Co. U. S. pat.

1,601,387, Sept. 28, 1926.—Nozzles are disposed in front of the rolls and arranged to deliver blasts of air directed in the direction of travel of the lead strip of the paper web and against the opposite side edges of the lead strip ahead of the nozzles, which act to lift the lead strip free from contact with its supporting roll.—A.P.-C.

Means for Applying Pressure to Calender Rolls. E. Mahler assignor to Paper Patents Co. U. S. pat. 1,587,784, June 8, 1926.—The free ends of the lever arms by means of which the pressure is applied are each connected to a vertical pull rod. Each rod comprises two sections connected by a turn buckle provided with a large hand wheel to permit the length of the rod to be adjusted. The lower extremity of the bottom section is pivotally connected to a piston in a hydraulic cylinder, the bottom of which in turn is pivotally connected to the calender frame so as to permit a limited swinging movement. The downward travel of the piston is limited by a suitable stop. The upper portion of the cylinder is connected with a pipe provided with a three-way valve allowing the cylinder to be connected either with an accumulator or with a discharge outlet. The pressure of the fluid in the accumulator is always more than sufficient to force the piston against its end stop under all ordinary conditions of working; but the pressure (or the piston area) is limited to provide a roll pressure which is insufficient to cause breakage of the roll journals or other parts of the stack. The roll pressure is regulated by ajusting the length of the pull rod by means of the turn buckle. This construction provides adequate and uniform pressure on the rolls, facilitates the adjustment and release of the pressure, eliminates the necessity for readjustment of the pressure after release, and prevents injury to the stack.—A.P.-C.

Saveall Savings. W. B. Gery. Paper Trade J. 83, No. 18, 107-110 (Oct. 28, 1926).—Discussion of the importance and care of savealls and different types of savealls, with a description of the Dorr saveall and its performance. Operating data from Dorr saveall installations are given which showed amortization of the cost of the equipment in from 40 days to 6.5 months.—A.P.-C.

Drives for Supercalenders and Platers. Charles F. Lee. Paper Mill 49, No. 43, 10, 46 (Oct. 23, 1926); Pulp and Paper 24, 1349-1351 (Nov. 11, 1926).—A description of the principal types of individual drives for super-calenders and platers.—A.P.-C.

Wall-Paper. E. G. Staunton. Eng. pat. 254,529.—In a process of manufacturing trimmed or semi-trimmed wallpaper, the strip is printed by a roller having a printing surface wider than the exposed width of the strip to be hung, but less than the total width of the strip, and marginal lines of weakness, or severance, spaced apart a distance equal to the width of the paper when hung, are produced by trimming tools. The printing surface bears a repeat pattern.—A.P.-C.

Paper Board. O. Kress. Can. pat. 259,160, March 23, 1926.—A composite moisture-proof paper board is made by uniting at least three sheets of paper by thin films of asphalt, one at least of the outer sheets being of sized paper and the inner or central sheet being of unsized paper adapted to absorb the residual oil from the asphalt and to prevent discoloration of the sized sheet.—A.P.-C.

Composite Board. H. S. Lewis. U. S. pat. 1,588,243, June 8, 1926.—The invention relates to a laminated board, the facing plies of which include a layer comprising ground cooked hardwood and another layer of pulp manufactured from other material.—A.P.-C.

Waterproof Paper or Fiberboard. A. L. Clapp. U. S. pat. 1,592,294, July 13, 1926.—The stock is mixed in the beater with a dispersion product of waterproofing material such as paraffin in an aqueous solution of sodium silicate, a precipitant, e.g., alum, is added, and the material is run off on a paper machine.—A.P.-C.

Waterproofing Corrugated Board W. H. Fairchild assignor to Mid-West Box Co. U. S. pat. 1,592,824, July 20, 1926.—After the corrugated sheet has been faced, waterproofing compound is introduced between the corrugations and the inner surface of the facing sheets.—A.P.-C.

Pulp Board. D. M. Sutherland, Jr., assignor to The Agasote Millboard Co. U. S. pat. 1,598,260, Aug. 31, 1926.—A mixture of pulp and binder is formed into a board initially containing only a quantity of water equal to the normal moisture of the fiber content, and the sponge board thus formed is compacted while heated and then cooled to a temperature below 100 degrees C. before releasing the pressure.—A.P.-C.

Pole for Festoon Drying. L. B. Case assignor to John Waldron Corporation. U. S. pat. 1,603,065, Oct. 12, 1926.—The pole is built up of a metallic body of uniform diameter throughout, which is covered with a non-metallic heat-insulating jacket over that portion of the pole which is engaged by the paper to be dried. The metallic body projects beyond the jacket at either end to engage with the tract or other supporting means.—A.P.-C.

Calender Temperature Control. G. E. Ruffner. U. S. pat. 1,592,226, July 13, 1926.—The end of the roll is bored out for inserting a cast iron plug with a suitable bore filled with a bath of mercury. Inside the mercury bath is a recording thermometer and one or more ether bulbs connected to a suitable diaphragm mechanism. The expansion and contraction of the ether in the bulbs with variations in temperature act on the diaphragm, which in turn opens or closes the valves in the steam and water lines to restore the temperature to its proper value.—A.P.-C.

Paper Gumming Machine. Rose Bros. (Gainsborough,) Ltd. Eng. pat. 250,382.—In this improved apparatus for gumming paper webs, should the web become broken or its position alter, the absence or decrease of tension causes the withdrawal of the pressure roll from the neighborhood of the gumming roll and the adhesive ceases to be spread either on the pressure roll or on the displaced web.—A.P.-C.

Coated Paper. G. F. Blombery. Eng. pat. 253,066.—Paper sheets or boards are finished by filming the surfaces with rubber associated with sizing and surfacing materials. The rubber may be in the form of latex or in an emulsified condition, and a small amount of ammonia may be added to maintain the rubber in a mobile condition. The surfacing materials may comprise kaolin, blanc fixe, satin white, barytes, talc, precipitated chalk, zinc oxide, etc., and the sizing material may consist of casein in an alkali solvent, glue, starch, gums or resins. After treatment the sheets may be subjected to cold vulcanization. When operating with coagulated raw rubber a putty-like product is first obtained by causing the rubber to absorb a large quantity of water, this product being emulsified with kaolin or like colloidal clay, and the sizing materials finally introduced.—A.P.-C.

Method and Machine for Making Fiber Board of Variable Thickness. A. L. Clapp assignor to the Flintkote Co. U. S. pat. 1,589,513, June 22, 1926.—The purpose of the invention is to provide a method and machine by which a relatively stiff waterproof board for shingle material may be formed, tapered in thickness on a wet paper machine so that it is well adapted for weatherproofing purposes, and may be laid flat in the same manner as ordinary tapered wood shingles. This is accomplished by removing portions of the pulp variable in longitudinal extent across the width of the web. The means used for removing part of the pulp consists of a roll with portions of larger diameter which is mounted so that it can be periodically dropped against the web on the felt, and the large diameter portions of the roll pick off some of the stock from the web.—A.P.-C.

Means for Applying a Sensitizing Coating to Paper. H. J. Brunk, assignor to C. F. Pease Co. U. S. pat. 1,590,417, June 29, 1926.—In coating or sensitizing photographic paper, particularly blue-print and white-print papers, the excess of sensitizing solution is usually scraped off by means of a glass scraper against which the paper is drawn. This results in streaking the paper,

the streaks frequently showing up only after the paper has been exposed and developed. According to the invention, this defect is eliminated by removing the surplus solution from the paper by blowing a thin sheet of air from a horizontal slot and directed substantially at right angles against the upwardly moving sheet of paper, a suitable backing being arranged behind the paper opposite the slot to prevent it from being blown away.—A.P.-C.

Method of and Apparatus for Impregnating Felt with Bituminous Materials. R. T. Johnston assignor to The Flintkote Co. U. S. pat. 1,587,652, June 8, 1926.—In order to obtain more thorough impregnation of the felt with a harder asphalt and without scorching or charring the felt, the sheet is impregnated under pressure. Successive portions of the sheet are fed to the saturating tank where the hot asphalt is kept under pressure and remain at rest for short periods, and provision is made for taking up and letting out portions of the sheet in advance and in the rear of the saturating tank so as not to interfere with the continuous motion of the remainder of the sheet. After saturation the felt is further coated with an additional amount of the same asphalt as was used for saturating.—A.P.-C.

Paper for Printing. A. Schaefer. U. S. pat. 1,591,238, July 6, 1926.—Paper is treated with a liquid comprising shellac, banana oil and alcohol, and is afterwards coated with a suspension of chalk.—A.P.-C.

Apparatus for and Method of Impregnating Felt. H. C. Koch. U. S. pat. 1,588,748, June 15, 1926.—The impregnating tank is provided with a stationary suction box, over which the felt is passed, so that it is subjected to a rubbing and a suction action while submerged.—A.P.-C.

Process and Apparatus for Saturating Felt. A. R. Lukens and N. C. Pike, assignors to The Richardson Co. U. S. pat. 1,589,537, June 22, 1926.—Above and parallel to each one of the driers in the upper tier is a trough containing molten bitumen in which dips a roll. The wet felt is simultaneously dried and impregnated by passing it around the drier and impregnating rolls in such a manner that it engages at one and the same time against the two sides of a drier roll and over the corresponding impregnating roll.—A.P.-C.

Roofing Material. J. H. Gillis assignor to Anaconda Sales Co. U. S. pats. 1,589,636 and 1,589,637, June 22, 1926.—No. 1,589,636: A usual base material is impregnated with asphaltic or similar waterproofing material and its surface is further treated with a solution of the waterproofing material in carbon tetrachloride or other volatile solvent. A conducting material, e.g., powdered graphite, is then applied and copper or other metal is electrodeposited on the conducting material. No. 1,589,637 specifies a similar process in which an emulsion of the waterproofing material instead of a solution is applied to the surface before the conducting material.—A.P.-C.

Machine for Making Roofing Product. R. T. Pollock assignor to The Flintkote Co. U. S. pat. 1,595,243, Aug. 10, 1926.—The sheet of roofing is fed between a pair of embossing rolls having continuous parallel substantially angular shaped bosses for impressing embossments transversely of the sheet and is then slit into shingle elements, a suitable device being provided to register with the formed embossments to preserve their shape during the slitting operation.—A.P.-C.

Process of Corrugating Roofing Sheets. L. F. Long and W. A. Forman, assignors to The Barrett Co. U. S. pat. 1,595,346, Aug. 10, 1926.—A sheet of paper containing pitch is formed on a paper machine, it is then preheated sufficiently to melt the pitch, and it is then pressed between heated corrugated plates without tearing the fibers or the sheet.—A.P.-C.

Method and Machine for Making Roofing Elements. C. E. Rahr, assignor to The Flintkote Co. U. S. pat. 1,506,449, Ang, 17, 1926.—The felt is formed on a cylinder provided with relatively long and narrow rectangular projections so as to form rows of spaced rectangular slits; and the web so formed is cut into shingle strips by cutting transversely across the middle of each row of slits and also halfway between adjacent rows.—A.P.-C.

Roll for Making Corrugated Paper. P. Knopf. U. S. pat. 1,587,963, June 8, 1926.—The roll consists of a hollow body portion in which is placed an electric heating element. On the body portion are mounted short corrugated sleeve sections, formed independently of each other, and keyed to the body portion. The sleeve sections can be shifted rotarily with respect to one another if it is desired to produce a corrugated paper with short staggered corrugations instead of long corrugations. This construction permits of easily and cheaply changing the corrugation of the paper, by merely changing the sleeves, instead of changing the whole roll.—A.P.-C.

Method of Producing Fibrillose Margins on Paper. J. A. Moore. U. S. pat. 1,589,542, June 22, 1926.—In order to provide a paper which will positively adhere when rolled and moistened, and likewise prevent disintegration of the cigarette when the moistened portion becomes dry, a bundle of sheets of cigarette paper is clamped securely between two pairs of clamps, the paper is thoroughly saturated with moisture along the area where it is desired to separate the paper, and the clamps are then drawn apart, thereby severing the entire bundle of papers along the saturated area to obtain a rough edge with the fibers protruding.—A.P.-C.

Apparatus for Testing the Rate of Absorption of Liquids by Paper. F. A. Sealer assignor to Westinghouse Electric and Manufacturing Co. U. S. pat. 1,561,285, Nov. 10, 1925.—The instrument consists essentially of a cylindrical receptacle with a slightly bevelled base and open at the top. The test sheet is clamped across the top and the liquid is introduced into the tester by a pipe which enters at the bottom of the chamber. An overflow pipe is connected to an opening at the highest point of the chamber, just under the sheet of paper, and its height is adjustable so that the head of liquid in the chamber can be regulated. The time which elapses between the appearance of liquid at the end of the overflow pipe and its penetration of the test piece is a measure of the rate of absorption.—A.P.-C.

Device for Dusting Rags. Firma H. Schirp. Ger. pat. 431,406 Papierfabr. 24, 477-478, Aug. 1, 1926.—A cylindrical centrifugal drum for dusting rags is described.—J.L.P.

The Defibering of Old Paper. G. Schumann. Wochbl. Papierfabr. 57, 796-797 (July 17, 1926).—Reference is made to a series of articles on stock disintegration machines by the same author, in Wochbl. Papierfabr. No. 1 (1922).—J.L.P.

Practical Beater Construction. S. Smith. Wochbl. Papierfabr. 57, 1043-1044 (Sept. 18, 1926).—Beater construction is discussed with reference to an article on a similar subject in Wochbl. Papierfabr. 57, No. 11 (1926).—J. L. P.

The Performance of Beaters of Recent Construction. A. Haussner. Zellstoff U. Papier 6, 352-355 (Aug., 1926).—Theoretical considerations relating to the performance of stone beater rolls.—J.L.P.

The Theory of the Papermachine Drive and Power Requirement. H. Rappold. Papierfabr. 24, 489-491 (Aug. 8); 499-503 (Aug. 15); 516-520 (Aug. 22, 1926).—Part of a series of articles relating to the mathematical calculation of the moment of rotation of the moving parts of the paper machine.—J.L.P.

Power Requirement of Papermachines. G. H. Golbs. Wochbl. Papierfabr. 57, 502-503 (May 1); 558-562 (May 15); 640-642 (June 5); 777-780 (July 10); 854-857 (July 31); 932-935 (Aug. 21); 1012-1016 (Sept. 11); 1067-1071 (Sept. 25, 1926).—Part of a series of articles concerning a theoretical treatment of power requirement for paper machines.—J.L.P.

Theoretical Considerations Relating to the Drive and Power Consumption of Papermachine. H. Rappold. Papierfabr. 24, 428-431 (July 11); 437-439 (July 18, 1926).—A comprehensive, mathematical discussion of the speed and power consumption of paper machines.—J.L.P.

Section of the

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Why Profits Vary From Expectations*

By Eric A. Camman, Mgr., System Dept., Peat, Marwick, Mitchell & Co.

Surely, it is clear that if the ordinary practical business executive, gifted with the common sense with which this type of mortal is credited, could be informed promptly why profits varied from previous expectations, he could be relied upon to take vigorous steps to avoid in future some of the variances which cause losses in profits. Also it follows that if he could be informed promptly regarding the variances, in profits from expected profits for a number of periods in succession, he could judge the trend of the important variances and concentrate on the reduction of the unfavorable ones.

These remarks seem almost too obvious to put down, yet strangely enough, their importance seems formerly to have been ignored in the design of industrial accounting (cost accounting) methods. The accountant went to great pains to work up accurate figures expressing what the results were, but left the important task of indicating why the results were what they were to the executive already overburdened with other duties.

Accountants for the Management

In consequence, either the accountant was then set to work to analyze the statement of results, or the busy executive took the statements home with him and analyzed them, or he filed them carefully away for future study.

Evidently, accounting methods which produce nothing more tangibly of help in management than this sort of statement were not of much use, and attempts made to remedy the defect by producing more and more figures in greater refinement and in wider and more ingenious distribution did not seem to improve matters much. The burden of sifting masses of detailed figures concerning results was still too great to be undertaken, if at all, within the time to act upon conclusions reached through the process.

Naturally this led to more thinking on the subject and eventually to the development of some newer phases of industrial accounting method which are today holding the foremost place in interest. One of these phases grew out of the substitution of standard costs for actual costs, an expedient which did not always prove entirely satisfactory. Today it is possible to use standard costs, not to do away with actual costs, but rather as the basis upon which to develop actual costs, and at the same time, to indicate the variances which are constantly occurring.

The use of the term "standard cost" would seem to indicate that the development of costs is the end and aim of the whole procedure. This is misleading. In the present day industrial accounting plan, cost accounting becomes only a part of a broader scheme. There are more important aims to be served. Today such methods must be designed from the point of view of management, to help in management, and hence directed toward the focus of data primarily of aid in current and future problems of management.

Two Aspects of Profit Making

These problems can be classified. For example, there are two sides to profit making management. One is earning profits and the other is keeping them intact for dividends. The former, earning profits, involves questions of policy mixed up with problems of control.

The latter, keeping profits intact, is more simply a matter of control almost entirely. All lost profits arise either from spending too much or accomplishing too little for the values put forth. These two major causes in turn can be subdivided into a few more specific ones.

This leads us logically to an appreciation of the fact that it is much clearer and more helpful to focus a few figures upon causes of variances than to take more time and trouble to express more figures accurately in statements of the results which are merely the reflection of the causes.

Pursuing this line of thought brings us to a discovery that the variances in actual profits from expected profits can be laid to six principal causes, no matter how many or how diverse the products being made. These six, of course, are compound causes made up of others, and can be subdivided. It is helpful, however, and may be illuminating, to summarize data first under the six causes referred to, which are always present and are always changing in their proportionate influence on profits. The assumed figures in Table 1 will serve as an example.

The illustration, Table 2, brings out not only that there are the six stated causes underlying variances in actual profits from expected profits, but that these are compensating causes frequently, having wide variances in opposite directions concealed in the net result. These are the germs of truth to get which masses of figures often have to be digested.

It is interesting to examine some of the situations portrayed by these hypothetical figures. For example, actual sales are slightly above expected sales, in fact, they stand at a ratio of 108, actual to expected. This condition is brought about through the influence of a combination of the first two mentioned causes, namely, the price variance and the volume variance, and through these two causes alone. That is to say, actual sales are the result of selling more or less goods at greater or smaller prices, in a composition of articles having greater or smaller natural profit

* From Manufacturing Industries.

margins. The volume variance arises out of selling more or less goods, and the price variance (for the sake of this example) consists of the price changes and the composition of sales together.

The ratio of actual sales to expected sales of 108 may be called the sales-trend ratio. It is an end ratio, and is the product of two other ratios, namely, a price trend ratio and a volume-trend ratio. To find these we must enter upon the use of standard costs as the foundation for making the calculations.

Our first concern is to remove the effect of the price variance from the actual sales. To do this we must ascertain the price-trend ratio, and this must be done on the basis of standard costs. We will assume that standard costs stood at 60 per cent of sales in the expected results and that we expected a cost trend ratio of 110, making the expected cost of goods sold 67 per cent of expected sales. We will also assume no change in the cost trend, that is to say, actual costs will turn out as they were expected (this merely to avoid entering upon too many variances). The standard cost of goods actually sold (of $227,700 under actual results) therefore, is $207,000. This figure may be derived by dividing $227,700 by 110, the cost-trend ratio which we have assumed to remain unchanged.

If we now divided $207,000 standard cost of goods sold by 60, which was the expected standard cost percentage, we can expand the $207,000 to a standard sales value of $345,000. That is to say, had we sold exactly the same goods in the proportions expected, and had we sold them at the expected prices, sales would have amounted to $345,000. The difference between this amount and actual sales of $324,000, or $20,700, represents a loss in profits from this cause. Either prices were lower or we sold more of less profitable articles, probably both. The price trend ratio is 94 ($324,300 divided by $345,000) and represents the price level to an expected 100.

Volume Variance

From these figures, it is simple to calculate also the volume variance and the volume-trend ratio. Clearly, if the standard sales value of current sales is $345,000, it represents an increased volume over the expected $300,000 of $45,000, on which our profit variance would be a gain in profits of 33 per cent, or $15,000. The volume-trend ratio is 115 ($345,000 divided by $300,000).

Now it is a mathematical fact that the sales-trend ratio of 108 is composed of the price-trend ratio of 94 times the volume-trend ratio, 115. This is always so. We will see a little later how this fact may be availed of to make some interesting predictions regarding probable profit variances.

Other Variances

Let us now follow through the calculation of some of the other variances. We have dismissed the manufacturing cost variance in this example as non-existent, for the sake of simplicity. Therefore, we have accounted up to this point for the variance in gross profit, a decline of $5,700 made up of a price variance loss of $20,700 and a volume variance gain of $15,000.

TABLE 1
ASSUMED FIGURES AS TO RESULTS

Expected Results			Actual Results	
$300,000	100%	Sales	$324,300	100%
200,000	67%	Cost of goods sold	230,000	71%
$100,000	33%	Gross profit	$ 94,300	29%
50,000	17%	Selling and general expense	51,300	16%
$ 50,000	16%	Net profit	$ 43,000	13%

Variances in selling and general expenses also exist, which should be split into two kinds, because these expenses are made up of a combination of fixed, partly fixed and partly fluctuating and entirely fluctuating expenses. It is the case that a certain portion of any variance in these should normally accompany any volume variance, and any remaining portion is an abnormal variance.

To make such a separation it is necessary to establish a number of schedules or budgets of the expected levels of these expenses at different volumes. We will assume the following expense levels:

SELLING AND GENERAL EXPENSES

Sales volume	$300,000	$400,000	133 per cent
Expense,			
Variable	20,000	26,666	133 per cent
Fixed	30,000	30,000	100 per cent
Total	$ 50,000	$ 56,666	

Net change+ $6,666 per $100,000.

By setting down the expense levels at different sales volumes, taking into account separately the fixed and variable expenses, it is possible to compute a net change at convenient intervals which may be used to interpolate and derive the approximate standard level of expense for the current sales volume actually realized. In our example the standard sales value of actual results was $345,000. The foregoing table indicates a net change in the expense level of $6666 per $100,000 change in sales volume. Accordingly, the amount of normal general and selling expense variance which should have accompanied the increase of $45,000 in sales volume is $2,700 ($45,000 times 0.6666).

This variance is set down on the analysis of variance in profit as Item 3. It really should be taken into account as a deduction from the gain of $15,000 in profit through volume variance, because it cost $2700 increased expenses to obtain the added volume.

The remainder of the variance in selling and general expenses (the abnormal variance) may now be computed. It will be seen from the assumed figures first above set down that the actual increase in outlay for these expenses is $1300, whereas we have already taken into account a warranted increase or $2,700. Hence a saving of $1400 has been made in expenditure. This saving appears as Item 6 as a gain in profit on the analysis of variances in profits. Again for the sake of convenience and simplicity, the last of the six named variances, i.e., the idle capacity variance, is assumed to be non-existent.

Combination of Price-Trend and Volume-Trend Ratios

Returning to the interesting combination of the price-trend ratio and the volume-trend ratio to produce the current sales-trend ratio, it will be worth while to pursue their study further. The fact that the last named is always the product of the first two named may be availed of to predict the effect on expected profit of any proportions in the price-trend ratio and the volume-trend ratio.

For example, we have seen that the effect on expected profits of the combination of a price-trend ratio of 94 and a volume-trend ratio of 115, is a loss in profits of $5700. We may naturally desire to know next what must the volume-trend ratio be under

TABLE 2
ANALYSIS OF VARIANCES IN ACTUAL FROM EXPECTED PROFITS

Actual Profit	$43,000	
Expected Profit	50,000	
Loss in profit	$ 7,000	
1—PRICE VARIANCE—Sales prices were lowered and—or goods of lower margins were sold in greater proportion, causing a loss in profits of		$20,700
2—VOLUME VARIANCE—Actually greater quantities were sold of these goods, causing a gain in profits of		15,000 (gain)
3—NORMAL EXPENSE VARIANCE—The greater volume involved a normal increase in selling and general expenses, causing loss in profits of		2,700
4—MANUFACTURING COST VARIANCE—Manufacturing costs varied above expectations, causing a loss in profits of		None
5—IDLE CAPACITY VARIANCE—Capacity used in current manufacture was below full capacity, causing a loss in profits of		None
6—ABNORMAL EXPENSE VARIANCE—Selling and general expenses increased less than the normal accompaniment to the volume increase causing a gain in profits of		1,400 (gain)
Total loss in profits		$7,000

the conditions of a price trend of 94 to yield the expected profit. Calculation can be quickly made, by first making an intermediate calculation to figure the effect of a volume-trend ratio at 100:

Price trend	94	
Volume trend	100	
Actual sales trend	94	
Then actual sales will be	$282,000	($300,000 × 0.94)
Standard sales will be	300,000	($282,000 ÷ 0.94)
Price variance will be	$ 18,000 loss	
Volume variance	NIL	
Net result	$ 18,000 loss in profits	

Under these proportions, assuming merely a price decline with no volume gained to offset, the effect on expected profits will be a loss of $18,000. We have previously seen that the effect at a volume trend of 115 is a loss of only $5700. Therefore, the increase of 15 points in the volume trend level brings about reduction in the loss in profits of $12,300 ($18,000 less $5700). This is at the rate of $820 per point in the volume-trend ratio. In other words, each increase of one point in the volume-trend ratio from 100 to 115, brings with it a decrease in the loss in profits of $820.

It is now merely necessary for us to find out how many points must be added to the volume-trend ratio of 115, at the rate of $820 per point, in order to break even in expected profit. Dividing $5,700, the loss entailed at the level of 115 for volume trend, by $820, we obtain 7 as the number of points to be added to 115. Therefore, a volume-trend ratio of 122 is needed to offset the effect of the reduced price-trend ratio. At this level, the result upon expected profits will be as follows:

Price trend	94	
Volume trend	122	(115 plus 7)
Actual sales trend	114.68	
Then actual sales will be	$344,000	($300,000 × 1.1468)
Standard sales will be	366,000	($343,000 ÷ 0.94)
Price variance will be	$ 22,000	loss
Volume variance will be	22,000	gain (66,000 × 0.33)
Net variance	NIL	(i.e., expected profit will be realized).

To explain all this takes a good deal longer than to do it. Also, the calculations must be set down at length in order to make the explanation clear. As a matter of fact, the effect upon expected profits at the price-trend ratio of 94 for any level of volume-trend may be set down in a table synoptically, somewhat like this:

Effect on Expected Profit

Effect on expected profit of any change in volume trend, at the price trend level of 94.

At volume-trend of	we gain	we lose (in profits)
100	$18,000	.....
115	5,700	.....
121.47	0	0
125	.....	$2,500
130	.....	6,600
etc.		

Space will not permit entering upon more of the very interesting possibilities which lie in the use of standard costs as a vehicle for not only the development of actual costs, but for the development of highly valuable index characters on trends of variances. It is these variances, and the trends of the variances, which are the real ends in view in the employment of accounting as an aid in management. They may be made to become of appreciable assistance in deciding upon policies before hand or in controlling expenditures before spending has been done.

Principles Of Budgetary Control*

By Albert W. Torbet of Frazer & Torbet

When General Dawes popularized the use of the term budget, he started a great deal of discussion. For the past few years budgets and bugetary control have been one of the favorite topics of discussion among merchants, bankers, accountants, and manufacturers. Much of the discussion has seemed to me to show that most people have not grasped the true meaning of budgets and budgetary control. It has been thought that budgets, budgetary control and the use of budgets as an aid to management are new subjects and new aids to management. Such is not the case; the principles of budgetary control and the use of budgets are old. The budget principles date back for many years; the origin was probably at the time that we began to recognize the conduct of business as something more than a mere gamble. The terms used in connection with budgets are perhaps new.

Fundamentals of Budgeting Control

The whole subject of budgetary control can be summarized in a few words. The theory can be amplified almost indefinitely. The fundamentals of budgetary control are:

1—The development of the plan of operation.

2—The execution of the plan.

In brief, budgetary control involves a study of conditions affecting an industry and a unit of an industry. Based on the research, a plan of operation is developed. Following the development of the plan, the plan is executed.

This introduction has covered the entire subject of budgetary control in a nut-shell. In presenting a brief amplification of the subject, I shall attempt to explain what I have found from experience to be the steps necessary to formulate the plan and to carry out the plan after it has been formulated.

Organization

In considering the plan of operation, the first matter which must be given serious consideration is organization. The fundamental principle of good organization is fixed responsibilty. Before any plan of operation can be properly developed or carreid out, someone must have definitely assigned responsibility.

The second subject for consideration in developing the plan, is the determination of the purpose of business. I believe that the prime purpose of any business is to earn a profit. This is a very materialistic view and perhaps is not in accord with some teachings. Unless there is a definite aim and the definite aim is as stated,—a profit,—there can be no plan of operation.

How the Profit Is Obtained

The third element in the formulation of a plan is the determination of how the profit is to be obtained. A few years ago the accountants and others of the profession who classed themselves as cost accountants, advocated the necessity of determining the cost of production so that a profit could be added to the cost in order to obtain a selling price. I have been guilty of advocating this idea. It seems to me now, however, that this cost plus idea has been very damaging to industry and to many units of industry. The cost plus idea has been one of the ideas back of many of the price-fixing combines. It has hampered, in many cases, industrial development. We have heard the phrase "Necessity is the mother of invention." This is probably one of the truest expressions that has ever had popular usage. Necessity has been the principal force back of all industrial development. During the war and following the war, we saw many evils of the cost plus theory. We came to recognize that under the cost plus basis the most profitable concern was the most inefficient; the greater the cost, the greater the profit.

Fortunately, at the present time the law of supply and demand has forced competitive prices and intense competition. We are living in a period when the laws of supply and demand are in operation and the survival of the fittest is the result. We have come to recognize that volume is the result of the demand which has been created and that the demand created is largely a result of the price.

Formulation of Plan

After recognizing these fundamentals of economics, we are prepared to start the formulation of our plan. During the early years of my training I learned that the first step in the solution of any problem was a clear statement of the problem; that when the problem had been clearly stated it was half solved. I, there-

* Given before The Society of Industrial Engineers, Chicago Chapter, Jan. 11, 1927.

fore, feel that the first step in formulating the plan is the statement of the problem, or the reason the plan is being considered.

Following the line of reasoning in the foregoing remarks, the conclusion must be drawn that the statement of the problem is the statement of the amount of profit which it is desired to earn. In other words, the first step in preparing the plan of operations *is the determination of the desired profit.*

In determining the amount of profit, we must take several factors into consideration:

1—The amount of dividend which it is desired to pay.

2—The amount of profit which must be left in the business to take care of increased working capital requirements.

3—The amount which must be set aside to take care of the retirement of the original investment in plant assets and the replacement of the plant assets.

4—The amount which must be set aside to cover future expansion.

The desired profit will be, then, the sum of the requirements for dividends, working capital, retirement and replacement of plant investment, and expansion requirements. This is what I term the statement of the problem.

Means of Earning Profit

After stating the problem, or determining the desired profit, we must consider ways and means of earning the profit. This profit can be earned only by producing products and selling them at a price which will yield the desired profit, this profit being the excess of the amount received from the sale of the products over the cost of producing the products. In using the expression "producing products," I am using the phrase not in a restrictive sense applying to factory production only, but in the broader sense, making the phrase inclusive of all activities, from the actual production of the products to the final delivery to the ultimate consumer.

Following the determination of the profit to be earned, we must make a careful study in order to determine the volume necessary to yield the profit. The required volume is determined by many factors. The time is too brief to make a thorough explanation of all the factors and all of the matters affecting these factors. Time will permit merely a general outline of the more fundamental of the matters to consider in determining volume:

1—Market conditions must be given careful consideration, and as market conditions are affected by general business conditions, the general conditions must receive consideration.

2—Very careful consideration must be given to the matter of the available demand at different selling prices. The demand can be expanded or contracted through the change in prices to an almost indefinite extent.

3—The margin of profit, or spread between the selling price and the cost of production, is of course a very apparent subject for thought and research.

Subject Closely Inter-Related

This subject and the two previously mentioned are very closely inter-related. Demand is dependent on general market conditions and price. The margin of profit is dependent on the price and the cost of production. The cost of production is dependent to some extent on the volume. I am not attempting to discuss all of the steps for research in determining volume. The balance of the fundamental factors which must be given consideration are merely mentioned:

4—Balance of Products.

5—Effort required to produce volume.

6—Cost of securing volume.

7—Law of diminishing returns.

8—Seasonal fluctuations in demand.

9—Saturation point and the change of the saturation point with varying prices.

10—Competition and price wars.

11—Relationship of productive capacity to apparent and possible demand.

After making careful studies of the subjects enumerated and their related subjects we are in a position to determine the volume which will yield the maximum return. We are also in a position to determine the volume which will yield the profit which has previously been determined upon.

Production Facilities

The plan which we have been formulating is a comprehensive plan of all the activities of a business. It is, therefore, necessary to consider not only the sales activities, as a basis for earning the profit, but the production facilities also must be given a very careful study and analysis. The study of the production facilities will fall into a number of general classifications:

1—The balance of facilities.

2—Facilities required for the production of the volume which will yield the maximum return, and facilities for the production of the volume which will yield the desired profit.

3—By-products or other products to be produced to make a balanced production possible.

4—Proportion of the production to be purchased or sub-let.

5—Volume and kind of production which can be produced on most efficient basis. This production may not be the production the Sales Department desired to sell.

6—Maximum capacity.

7—Minimum volume for efficient operation.

8—Maximum volume for efficient operation and volume necessary for maximum efficiency.

9—Sources of materials, material storage, warehousing, etc., etc.

10—Manufacturing costs and possible economies in relation to the volume.

Financial Resources

In addition to the sales and production, our studies necessary in the formulation of the plan must include a very careful sutdy of financial resources. Some of the principal matters for consideration in financial resources are:

1—Working capital requirements.

2—Available bank credit.

3—Purchase and sale terms.

4—Working capital requirements for volume to yield maximum return.

5—Working capital requirements for sale of volume to yield maximum profits, production of this volume, and the sale and production of the volume required to yield the desired profit.

Up to this point, we have given consideration in formulating the plan, to sales, production and finance. After these studies have been completed, we come to the most important part of the formulation of the plan. We have reached the conclusion of the formulation of the plan by actually making the plan for the operation of the sales, production, and financial departments by a careful consideration of the relationship and the inter-relationship of the information regarding the possible operations of the three departments.

The plan of operation should be based on the information regarding the activities of sales, production, and financial departments. It must take into consideration all three departments. Based on this information, it can be determined how the desired profit can be earned by the production and sales of specified products. In preparing the plan through the correlation of the information which has previously been outlined, the deficiencies of the departments can be given special study and steps taken to remedy such deficiencies.

Plan of Operation for Line Executives

Up to this point we have considered the research and staff work necessary in preparing a plan of operation to yield a desired profit. In order that this work may be of some value, a plan of operation must be adopted by the line executives who are to be charged with the carrying out of the plan and portions of the plan. The plan of operation must be accepted and adopted

as their own by the sales, production, and finance officers before it can be of any value and before it can be placed in operation. As soon as the plan is adopted it becomes the budget. The budget is composed of sales, production, and financial budgets. These budgets may in turn be subdivided before they are used as a basis for executive action.

We have considered the steps leading up to the consideration and adoption of the budget. We have not given any thought to how the budget is to be used. The use of the budget as an aid to the executives in their administration is termed "budgetary control."

It is very easy to say that after the plan of operations has been carefully worked out it is very simple to carry out the plan. The executives have their work mapped out for them and all they need to do is to follow instructions. This is fine in theory. The executives' work could be largely eliminated if it were possible to make a plan and follow it exactly. As none of us is infallible, it is humanly impossible to make a plan which can be followed in exact detail. Regardless of how carefully the plan has been prepared, it must be changed from time to time to meet conditions as they arise. Because of these facts, there are two matters which must be emphasized if the use of budget is of any value.

First, the budget plan must be elastic and must be such that it can be changed when conditions necessitate changes.

Second, while it is usually advisable to make a general plan for a comparatively long period of time,—one to five years or even longer,—the actual plan of operations can cover a period of one or a few months safely. The budgetary period must be fixed to meet conditions.

Several Points to Remember

In the execution of the plan, several thoughts must be kept in mind:

1—The organization must be one in which there is fixed responsibility.

2—There must be a correlation of the sales, production, and finance operations through one chief.

3—The sales, production, and finance function must be performed harmoniously.

4—The actual operations, week by week or month by month, and the result of operations must be watched in relation to the plan or budget which has been adopted.

5—As occasion arises, the plan or budget must be revised to fit conditions.

The high spots only of budgetary control have been touched. The subject is so great that it has been impossible to do much more than present an outline. I touched on the subject of the necessity of comparing results with the budget. This comparison involves the necessity of budgetary reports. The reporting necessary in connection with budgetary control is simple; is merely the comparison of estimates with actual results. There must be several types of reports and comparisons made, which I will comment on briefly.

There must be a master budget which is the comprehensive plan for the entire budget period,—usually one year. This master budget is based on the sales estimate, production cost to meet the sales estimate, estimate of material requirements, estimated profit and loss statements and balance sheets. The master budget and the elements composing it must be broken down into budgets for a shorter budgetary period,—usually one to three months. The reporting usually consists of a statement in parallel columns, the result of operations being placed in one column and the budget in another.

I do not claim that budgetary control is a panacea for all business ills. I know that a so-called budgetary control system will *not* run any business. A business must be run by individuals. I do maintain that the budgetary control idea is, has, and can be used as a great aid to the successful conduct of business.

Trade Marks Department

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RITE-FINE No. 215,090. The Paper Mills Company, Chicago, Ill. For writing paper and mailing envelopes.

ADVELOPE No. 245,103. The Oak Press, New York City. For mailing wrappers.

REDEMPTION No. 245,128. Whiting-Plover Paper Company, Stevens Points, Wis. For writing and printing paper.

OAK No. 225,299. E-Z Opener Bag Company, Decatur, Ill. For paper bags.

PURPLE CORE No. 244,128. William Bemiss, San Francisco, Cal. For gummed paper tape, adding-machine paper rolls, and cash register paper rolls.

MOUNTAIN BROOK No. 244,627. Paramount and Specialty Company, Inc., New York City. For bond paper.

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FINANSOGRAPH, No. 239,605. Tax Digest, Inc., Boston, Mass. For blank forms to be used in connection with a loose-leaf system for keeping income-tax records.

OPAL-ART, No. 243,398. The Tait Paper and Color Industries, Inc., Glens Falls, N. Y. For wall paper.

DAY BY DAY, No. 244,721. Samuel Ward Manufacturing Company, Boston, Mass. For diaries.

GREEN CORE, No. 245,741. Mid-States Gummed Paper Company, Chicago. For textile-fabric tape, both gummed and ungummed, sold in rolls.

TRADE-MARK CONSISTING OF THE GREEN COLORING OF THE CORE ON WHICH THE TAPE IS WOUND, No. 245,742. Mid-States Gummed Paper Company, Chicago. For same as above.

JUMBO, No. 243,845. R. Brownson & Co., Hastings, Minn. For paper shopping bags.

KONFUSA, this expression is surrounded by a background of numerous numbers, No. 244,876. Magill-Weinsheimer Company, Chicago. For envelopes.

OBSKURBA, this expression is surrounded by a background of numerous Chinese characters, No. 244,877. Magill-Weinsheimer Company, Chicago. For envelopes.

F H—written in a fanciful manner. No. 242,833. Howes-Fahnestock, Peoria, Ill. For blank form-namely, insurance-policy and expiraeion-record forms.

ARROW BLOTTING.—No. 244,321 Rochester Paper Company, Rochester, Mich. For blotting paper.

SIGN-CRAFTERS.—No. 244,445. Hurlock Brothers, Company, Inc., Philadelphia, Pa. For cardboards for printers, lithographers, sign writers, and general display work.

POSTER-COAT.—No. 244,446 Hurlock Brothers, Company, Inc., Philadelphia, Pa. For cardboards for printers, lithographers, sign writers, and general display work.

KIMPAK.—No. 244,502. Kimberly-Clark Company, Neenah, Wis. For absorbent wadding made of paper stock and employed principally for packing furniture and other articles.

Equitable Bag Co. Opens Boston Office

BOSTON, Mass., May 2, 1927.—To take care of its growing trade in the New England territory, the Equitable Paper Bag Company of Brooklyn, N. Y., manufacturer of specialties in paper bags and envelopes, has opened sales offices at 185 Devenshire Street, Boston, Mass. under the sales management of Lawrence N. Caplin.

COST SECTION

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING MAY 7, 1927

SUMMARY

Cigarette paper .....417 cs.
Wall paper .....97 bls., 1 cs.
Paper hangings .....52 bls., 25 cs.
Painted paper .....2 cs.
News print .....362 rolls
Printing paper .....259 cs.
Stencil paper .....31 cs.
Colored paper .....25 cs.
Drawing paper .....9 cs.
Wrapping paper .....98 cs.
Packing paper .....277 bls.
Decalcomania paper .....39 cs.
Pergamyn paper .....43 cs.
Surface coated paper .....167 cs.
Gold coated paper .....2 cs.
Metal coated paper .....13 cs.
Baryta coated paper .....141 cs.
Basic paper .....66 cs.
Filter paper .....10 bls., 68 cs.
Writing paper .....35 cs.
Carbon paper .....11 cs.
Tissue paper .....3 cs.
Paper tubes .....40 cs.
Wall board .....45 cs.
Straw board .....587 rolls, 223 pkgs.
Straw pulp board .....126 rolls
Miscellaneous paper ..2,351 rolls, 406 bls., 650 cs.

CIGARETTE PAPER

P. J. Schweitzer, Pres. Van Buren, Marseilles, 44 cs.
P. J. Schweitzer, De Grasse, Havre, 3 cs.
Liggett & Myers Tobacco Corp., De Grasse, Havre, 30 cs.
Standard Products Corp., Pipestone County, Havre, 60 cs.
Standard Products Corp., MacKeesport, Havre, 80 cs.
R. J. Reynolds Tobacco Co., MacKeesport, Havre, 200 cs.

WALL PAPER

J. E. Bernard & Co., Delilian, Antwerp, 14 bls.
F. J. Emmerich, Minnewaska, London, 3 bls.
Globe Shipping Co., Hamburg, Hamburg, 2 bls.
Wedeman, Godknecht & Lally, Hamburg, Hamburg, 5 bls.
Gallagher & Ascher, Hamburg, Hamburg, 1 ble.
F. J. Emmerich, Hamburg, Hamburg, 56 bls.
W. H. S. Lloyd & Co., Laconia, Liverpool, 6 bls.
W. H. S. Lloyd & Co., De Grasse, Havre, 2 bls.
C. Grimmer, De Grasse, Havre, 1 cs.
F. J. Emmerich, Cedric, Liverpool, 8 bls.

PAPER HANGINGS

W. H. S. Lloyd & Co., Minnewaska, London, 42 bls., 8 cs.
G. J. Hunken, Hamburg, Hamburg, 4 bls.
A. C. Dodman, Jr., Inc., Cedric, Liverpool, 6 bls.
Whiting & Patterson Co., Inc., Olympic, Southampton, 17 cs.

PAINTED PAPER

R. F. Downing & Co., De Grasse, Havre, 2 cs.

NEWS PRINT

The Times Co., Stockholm, Gothenburg, 78 rolls.
A. S. Zabriskie, Berlin, Bremen, 73 rolls.
Journal of Commerce, Casper, Helsingfors, 211 rolls.

PRINTING PAPER

P. C. Zuhlke, Delilian, Antwerp, 26 cs.
P. C. Zuhlke, Pennland, Antwerp, 113 cs.
International Forwarding Co., Pennland, Antwerp, 25 cs.
Keuffel & Esser Co., Hamburg, Hamburg, 58 cs.
E. Dietzgen & Co., Veendam, Rotterdam, 37 cs.

STENCIL PAPER

Arlac Dry Stencil Co., Hamburg, Hamburg, 31 cs.

COLORED PAPER

Borden Riley Paper Co., Delilian, Antwerp, 10 cs.
C. W. Williams, Delilian, Antwerp, 6 cs.
C. W. Williams, Pennland, Antwerp, 9 cs.

DRAWING PAPER

H. Reeve Angel & Co., Inc., Tuscania, London, 4 cs.
Keuffel & Esser, Hamburg, Hamburg, 5 cs.

CREPE PAPER

S. Gilbert, Veendam, Rotterdam, 1 cs.

WRAPPING PAPER

Birn & Wachenheim, Delilian, Antwerp, 19 cs.
Birn & Wachenheim, Pennland, Antwerp, 23 cs.
F. C. Strype, Pennland, Antwerp, 54 cs.
The Eleto Co., Hamburg, Hamburg, 2 cs.

PACKING PAPER

International Accep. Bank, Bergensfjord, Amtfors, 55 bls.
National City Bank, Hamburg, Hamburg, 222 bls.

DECALCOMANIA PAPER

C. W. Sellers, Berlin, Bremen, 10 cs.
C. W. Sellers, Hamburg, Hamburg, 2 cs.
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PERGAMYN PAPER

F. C. Strype, Hamburg, Hamburg, 20 cs.
E. V. Hadley, Hamburg, Hamburg, 23 cs.

SURFACE COATED PAPER

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Gevaert Co. of America, Delilian, Antwerp, 19 cs.
Gevaert Co. of America, Pennland, Antwerp, 36 cs.
P. C. Zuhlke, Pennland, Antwerp, 43 cs.

GOLD COATED PAPER

Richard Shipping Co., Berlin, Bremen, 2 cs.

METAL COATED PAPER

Hensel, Bruckman & Lorbacher, Berlin, Bremen, 8 cs.
Hensel, Bruckman & Lorbacher, Hamburg, Hamburg, 3 cs.
Overton & Co., Hamburg, Hamburg, 2 cs.

BARYTA COATED PAPER

Globe Shipping Co., Muenchen, Bremen, 141 cs.

BASIC PAPER

Globe Shipping Co., Delilian, Antwerp, 66 cs.

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H. Reeve Angel & Co., Tuscania, London, 7 cs.
E. Fougera & Co., Olympic, Southampton, 54 cs.
A. Giese & Son, Olympic, Southampton, 10 bls.

WRITING PAPER

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B. Altman & Co., Olympic, Southampton, 1 cs.
E. Walker, Pres. Wilson, Trieste, 4 cs.
Coenca, Morrison Co., De Grasse, Havre, 6 cs.
Japan Paper Co., De Grasse, Havre, 10 cs.
F. C. Strype, De Grasse, Havre, 3 cs.
American Express Co., Pipestone County, Havre, 3 cs.

CARBON PAPER

Otter Manfg. Co., Fred. VIII, Copenhagen, 11 cs.

TISSUE PAPER

Meadows, Wye & Co., Laconia, Liverpool, 3 cs.

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H. de Maguinn, Delilian, Antwerp, 20 cs.
H. de Maguinn, Pennland, Antwerp, 20 cs.

WALL BOARD

O. M. Baxter, Inc., Stockholm, Gothenburg, 45 cs.

STRAW BOARD

Perkins, Goodwin & Co., Pennland, Antwerp, 55 rolls.
Perkins, Goodwin & Co., Veendam, Rotterdam, 118 rolls.
Haas Bros., Veendam, Rotterdam, 216 rolls.
R. Wilson Paper Corp., Veendam, Rotterdam, 82 rolls.
A. B. Massa Paper Corp., Veendam, Rotterdam, 223 pkgs.
A. Vuyk, Veendam, Rotterdam, 116 rolls.

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J. P. Heffernan Paper Co., Veendam, Rotterdam, 126 rolls.

MISCELLANEOUS PAPER

Steiner Paper Corp., Veendam, Rotterdam, 82 cs.
Tamm & Co., Veendam, Rotterdam, 2 cs.
S. Gilbert, Veendam, Rotterdam, 10 cs.
International Forwarding Co., Veendam, Rotterdam, 22 cs.
H. Reeve Angel & Co., Inc., Casper, Helsingfors, 384 cs.
Finnish Book Concern, Casper, Helsingfors, 13 bls.
Arkell Safety Bag Co., Stockholm, Gothenburg, 210 rolls.
C. K. MacAlpine & Co., Stockholm, Gothenburg, 599 rolls, 130 bls.
Crepe Kraft Co., Stockholm, Gothenburg, 36 rolls, 5 bls.
E. Walker, Stockholm, Gothenburg, 49 bls.
The Borregaard Co., Inc., Stockholm, Gothenburg, 1,506 rolls, 184 bls.
Walker, Goddard, Plehn Co., Stockholm, Gothenburg, 25 bls.
Japan Paper Co., Duilio, Genoa, 36 cs.
G. W. Sheldon & Co., De Grasse, Havre, 6 cs.
Japan Paper Co., De Grasse, Havre, 69 cs.
S. Gilbert, De Grasse, Havre, 7 cs.
Kadri Bros., De Grasse, Havre, 10 cs.
P. Puttmann, De Grasse, Havre, 5 cs.
M. Snedeker Corp., Hamburg, Hamburg, 17 cs.

RAGS, BAGGINGS, ETC.

Bulkley, Dunton & Co., Innoko, ——, 28 bls. rags.
A. W. Fenton, Inc., Innoko, Rotterdam, 98 bls. rags.
Whaling Waste Products Co., Innoko, Rotterdam, 21 bls. rags.
E. J. Keller Co., Inc., Sacandaga, Antwerp, 99 bls. bagging.
E. J. Keller Co., Inc., Sacandaga, Antwerp, 169 bls. flax waste.
Castle & Overton, Inc., Sacandaga, Antwerp, 50 bls. rags.
Block & Co., Sacandaga, Antwerp, 31 bls. bagging.
W. Steck & Co., Sacandaga, Antwerp, 35 bls. jute waste.
American Exchange Irving Trust Co., Sinaia, Marseilles, 155 bls. rags.
Equitable Trust Co., Delilian, Antwerp, 210 bls. flax waste.
Bulkley, Dunton & Co., Berlin, ——, 117 bls. bagging.
A. W. Fenton, Inc., Berlin, Bremen, 41 bls. rags.
Brown Bros. & Co., Minnewaska, London, 29 bls. rags.
I. Cohen Son & Co., Hamburg, Hamburg, 41 bls. rags.
Brown Bros. & Co., Cameronia, Glasgow, 25 bls. new cuttings.
Phila. Girard Natl. Bank, Cameronia, Glasgow, 48 bls. rags.
Darmstadt, Scott & Courtney, Tampa, Glasgow, 48 bls. rags.
E. J. Keller Co., Inc., Pipestone County, Havre, 176 bls. rags.
Castle & Overton, Inc., Pipestone County, Havre, 52 bls. rags.
Bulkley, Dunton & Co., Pipestone County, ——, 117 bls. bagging.
Salomon Bros. & Co., De Grasse, Havre, 5 bls. rags.
Castle & Overton, Inc., Pres. Roosevelt, Bremen, 60 bls. bagging.
New England Waste Co., Rockaway Park, Manchester, 68 bls. bagging.
Castle & Overton, Inc., MacKeesport, Havre, 286 bls. rags.
Castle & Overton, Inc., MacKeesport, Havre, 103 bls. bagging.
E. J. Keller Co., Inc., MacKeesport, Havre, 90 bls. rags.
V. Galaup, MacKeesport, Havre, 388 bls. rags.
Castle & Overton, Inc., MacKeesport, Dunkirk, 114 bls. rags.
Chemical National Bank, Muenchen, Bremen, 34 bls. rags.
Darmstadt, Scott & Courtney, Veendam, Rotterdam, 92 bls. rags.

OLD ROPE

Brown Bros. & Co., Delilian, Antwerp, 64 coils.
E. J. Keller Co., Inc., Minnewaska, London, 69 coils.
Chemical National Bank, Muenchen, Bremen, 80 coils.
Brown Bros. & Co., Veendam, Rotterdam, 186 coils, 5 bls.

MANILA ROPE YARN

Manufacturers Trust Co., Pres. Van Buren, Manila, 275 pkgs.

MANILA ROPE

Peck & Mack Co., Innoko, Rotterdam, 65 coils.
N. Y. Cordage Co., Delilian, Antwerp, 41 coils.
Ellermans' Wilson Line, Tuscania, London, 71 coils.
N. Y. Cordage Co., Tuscania, London, 7 coils.
Brown Bros. & Co., Hamburg, Hamburg, 34 coils.
N. Y. Cordage Co., Cedric, Liverpool, 38 coils.
Burrshel Co., Inc., Olympic, Southampton, 24 pkgs.

HEMP ROPE

De Grauw, Aymar & Co., Pennland, Antwerp, 22 bls.
National City Bank, Laconia, Liverpool, 65 pkgs.
N. Y. Cordage Co., Pres. Van Buren, Genoa, 14 bls.

CASEIN

T. M. Duche & Sons, Minnewaska, London, 250 bags.
T. M. Duche & Sons, Tampa, Buenos Aires, 3,503 bags, 210,180 kilos.

WOOD PULP

Price & Pierce, Ltd., Stockholm, Gothenburg, 150 bls. wood pulp.
Pagel, Horton & Co., Inc., Wanja, Gefle, 1,250 bls. sulphite, 254 tons.
Pagel, Horton & Co., Inc., Wanja, Gefle, 1,250 bls. sulphate, 254 tons.
Pagel, Horton & Co., Inc., Wanja, Gefle, 625 bls. wood pulp, 203 tons.

(Continued on page 60)

SPEED REDUCERS

DESIGNED FOR CONTINUOUS-DUTY

Rugged in Construction
Built for Long Life

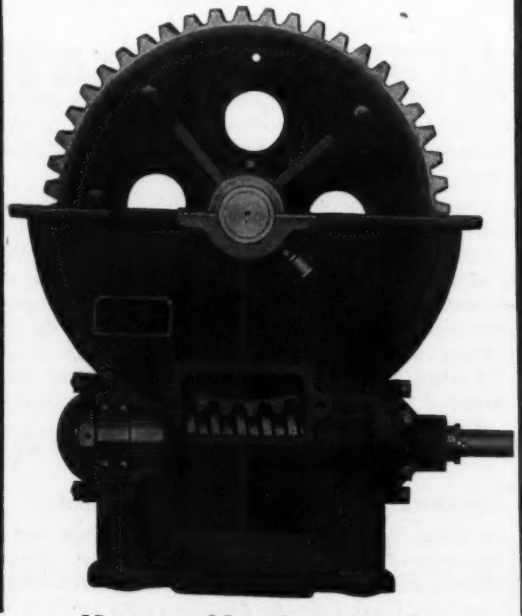
Special features:

All cast parts are given special treatment to prevent any loose sand or scale particles from flaking off.

ALL PARTS READILY ACCESSIBLE

for inspection or replacement. Extra large Oil reservoir supplied for worm and gear lubrication.

Ball Bearings are lubricated separately from the worm gears. Write for detail specifications.



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Broadway and Fifth Avenue,
at Madison Square, New York
"More than an office building"

Imports of Paper and Paper Stock

(*Continued from page 58*)

Bulkley, Dunton & Co., Wanja, ——, 1,000 bls. sulphite, 127 tons.
Castle & Overton, Inc., Berlin, Bremen, 737 bls. wood pulp.
Perkins, Goodwin & Co., Bergensfjord, Drammen, 250 bls. sulphite.
Perkins, Goodwin & Co., Bergensfjord, Oslo, 300 bls. chemical pulp.
E. M. Sergeant & Co., Bergensfjord, Drammen, 200 bls. sulphite.
Scandinavian Pulp Agency, Inc., Casper, Gothenburg, 508 bls. kraft pulp, 101 tons.
Scandinavian Pulp Agency, Inc., Casper, Gothenburg, 127 bls. sulphite, 25 tons.
Chase National Bank, Muenchen, Bremen, 700 bls. wood pulp.

WOOD FLOUR

F. B. Vandegrift & Co., Innoko, Rotterdam, 400 bls., 20,300 kilos.

PULP BOARDS

Lagerloef Trading Co., Bird City, Helsingfors, 181 bls., 24 tons.

PHILADELPHIA IMPORTS

WEEK ENDING MAY 7, 1927

New England Waste Co., Innoko, Rotterdam, 50 bls. cotton waste.
Woolsey Import Co., Innoko, Rotterdam, 232 bls. rags.
Brown Bros. & Co., Bristol City, Bristol, 674 bls. rags.
National Bank of Commerce, Bristol City, Bristol, 88 bls. rags.
J. A. Steer, Bristol City, Bristol, 112 bls. rags.
E. Butterworth & Co., Inc., Pipestone County, Dunkirk, 83 bls. rags.
Whaling Waste Products Co., Pipestone County, Dunkirk, 78 bls. rags.
Leipheimer Missimer Co., Pipestone County, Dunkirk, 105 bls. rags.
Castle & Overton, Inc., Pipestone County, Dunkirk, 34 bls. rags.
S. E. Ingber, Pipestone County, Dunkirk, 94 bls. rags.
J. M. Hagy Waste Works, Pipestone County, Dunkirk, 103 bls. rags.
Stephano Bros., Pipestone County, Havre, 13 cs. cigarette paper.
Salomon Bros. & Co., Pipestone County, Havre, 219 bls. rags.
E. A. Stone & Co., Pipestone County, Havre, 112 bls. rags.
E. J. Keller Co., Inc., Pipestone County, Havre, 68 bls. rags.
Castle & Overton, Inc., Pipestone County, Havre, 115 bls. rags.
J. M. Jaffe, Pipestone County, Havre, 13 bls. rags.
Atlas Waste Manfg. Co., Pipestone County, Havre, 79 bls. rags.
S. Birkenstein & Sons, Pipestone County, Havre, 21 bls. rags.
S. Birkenstein & Sons, Pipestone County, Havre, 35 bls. old rope.
Strawbridge & Clothier, Pipestone County, Havre, 3 cs. writing paper.
Paper Service Co., London Commerce, London, 1 ble., 6 rolls coated paper.
Robert Blank, London Commerce, London, 189 bls. rags.
Robert Blank, Laguna, Naples, 286 bls. rags.
Robert Blank, Hektor, Barcelona, 100 bls. rags.
E. J. Keller Co., Inc., W. Campion, Hamburg, 86 bls. rags.
Castle & Overton, Inc., Sacandaga, Antwerp, 296 bls. rags.
Castle & Overton, Inc., Galtymore, Scotland, 59 bls. paper stock.

BALTIMORE IMPORTS

WEEK ENDING MAY 7, 1927

Pagel, Horton & Co., Inc., Wanja, Gefle, 8,000 bls. sulphite, 1,422 tons.
Brown Bros. & Co., Wanja, Gefle, 2,750 bls. sulphate, 557 tons.
Bulkley, Dunton & Co., Wanja, ——, 2,500 bls. sulphite, 508 tons.
E. J. Keller Co., Inc., Blydendyk, Karlsruhe, 1,200 bls. wood pulp.
Congoleum Nairn Co., MacKeesport, Havre, 311 bls. rags.
Congoleum Nairn Co., MacKeesport, Dunkirk, 212 bls. rags.

BOSTON IMPORTS

WEEK ENDING MAY 7, 1927

J. Carter & Co., Inc., Bird City, Helsingfors, 75 cs. paper.
Scandinavian Pulp Agency, Inc., Bird City, Gothenburg, 5,080 bls. kraft pulp, 1,016 tons.
Scandinavian Pulp Agency, Inc., Bird City, Gothenburg, 2,490 bls. sulphite, 497 tons.
Brown Bros. & Co., Bird City, Gothenburg, 65 coils old rope.
1st National Bank of Boston, Tampa, Buenos Aires, 250 bags casein, 15,000 kilos.
J. A. & W. Bird & Co., Pipestone County, Havre, 50 bags casein, 5,000 kilos.
M. A. Feinburg & Son, Pipestone County, Havre, 120 bls. rags.
V. Galaup, Pipestone County, Havre, 185 bls. rags.
Baring Bros. & Co., Pipestone County, Havre, 166 bls. rags.
Castle & Overton, Inc., Pipestone County, Havre, 46 bls. rags.
Castle & Overton, Inc., Tigre, Belgium, 228 bls. rags.
Castle & Overton, Inc., Eastern Dawn, Rotterdam, 181 bls. wood pulp.
Bulkley, Dunton & Co., Pipestone County, ——, 300 bls. bagging.

NEW ORLEANS IMPORTS

WEEK ENDING MAY 7, 1927

Castle & Overton, Inc., Winston Salem, France, 217 bls. rags.

Complain About Coal Freight Rates

CORINTH, N. Y., May 9, 1927.—The International Paper Company recently filed a complaint with the Interstate Commerce Commission in regard to freight rates charged by the Delaware and Hudson Railroad Company on bituminous coal shipments to Corinth, Fort Edward and Glens Falls. Following a hearing at which the I. P. Co. presented evidence showing alleged discrimination against the paper concern by the railroad the commission ordered an investigation.

R. N. Trisise, examiner for the Interstate Commerce Commission, who made the investigation, has upheld the contention of the International Paper Company, and in his report submitted to the commission he recommends a reduction in the D. & H. rates on bituminous to Corinth, Fort Edward and Glens Falls.

The railroad company claims that the reduced rates, if fixed by the commission, will threaten the prosperity of the entire line. This case has been followed with considerable interest by industrial concerns in this section.

Big News Print Sales Merger Goes Through

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., May 10, 1927.—The gigantic news print sales merger already foreshadowed in the PAPER TRADE JOURNAL is now an accomplished fact. Today the incorporation was announced of the Canadian News Print Company, Limited, with head office in Montreal. The company has a capitalization of $5,000,000 preferred stock and 10,000 common shares of no par value. It has acquired the G. H. Mead Company, the Canadian Export Paper Company, and the St. Maurice Sales Company, Limited. Through these subsisiary companies the Canadian News Print Company will control the sale of a daily output of 5,000 tons of news print, being the combined production of the following mills: Laurentide Company, Limited, Price Brothers and Company, Limited, Port Alfred Pulp and Paper Corporation, St. Maurice Valley Corporation, Canada Paper Company, Ste. Anne Paper Company, Limited, Spanish River Pulp and Paper Mills, Limited, Fort William Paper Co., Limited, Abitibi Power and Paper Company, Limited, Manitoba Paper Company, Limited, and the Anglo Canadian Pulp and Paper Company, Limited.

The directors of the new company will be George Chahoon, Jr., Sir Herbert S. Holt, George H. Mead, Alexander Smith, John H. Price, J. H. Gundy, G. H. Montgomery, Frank W. Clarke, W. N. Hurlbut. The officials of the company will consist of W. N. Hurlbut, president; E. L. Crooker, vice-president; T. T. Walker, vice-president; Frank B. Common, secretary.

It is expected that the new company will commence operations immediately. Its aim is officially stated to be "the energetic broadening of the market for Canadian news print through the development of overseas business. Through the merger of the above selling organization it is felt that three factors will materially contribute toward more economical distribution, namely, the lowering of selling costs due to the elimination of duplication in selling effort, the saving in freight by shipping from the mill best favored by geographical location and the better service to publishers with quick and assured deliveries."

Domestic Paper Being Used for Exports

An interesting change in trend of use of paper has been disclosed by a study of imports of foreign esparto papers. According to information given the domestic mills by the Import Committee of the American Paper Industry, domestic papers are now being largely used instead of foreign esparto papers, especially for such uses as the production of gummed labels for drug bottles. Esparto is still extensively used, but the domestic paper has been substituted for a considerable volume of the foreign esparto.

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New Paper Specialties

or if you are confronted with color problems of any kind, such as fastness to light, fastness to alkali, two-sidedness, please consult our newly equipped laboratories and our experienced staff.

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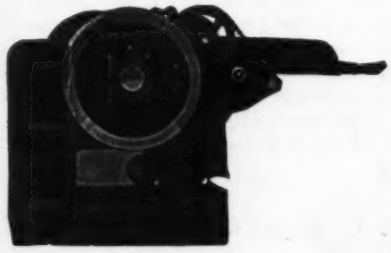
RAG CUTTERS



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Factory—NEWARK, N. J.

New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, May 11, 1927.

Conditions in the local paper market are fairly satisfactory for the time of the year. While the demand for the various grades is rather light in most divisions of the industry, prices are holding up very well and there are no signs of weakening so far. Sales forces of the leading paper organizations are keeping up their efforts and are confidently looking forward to securing a good volume of new business before the usual midsummer slump sets in.

The news print market is in a sound position. Statistics prepared by the News Print Service Bureau show that the number of pages printed by the leading publications during April was approximately the same as in April, 1926. The advertising record of the Greater New York newspapers for April shows an increase of 3 per cent over April, 1926, according to the *New York Evening Post*. Prices are being well maintained and contract withdrawals are proceeding at a normal pace.

Demand for the various grades of paper board is persistent, and, with offerings rather limited, prices remain steady to firm. The fine paper market is exhibiting a strong tone. Tissues are still in good request. Steadiness continues to prevail in the coarse paper market. The southern kraft wrapping paper situation has not changed materially on account of the Mississippi River floods and production has only been affected slightly. Quotations are holding up to schedule with little difficulty.

Mechanical Pulp

Trading in the ground wood market during the past week was mostly along routine lines and the prices on both imported and domestic mechanical pulp were practically unchanged. An agreement to curtail this year's output by 200,000 long tons, or more than one-third, has been signed by representatives of the Swedish and Norwegian pulp industries, according to a dispatch from Stockholm. The reduction was ordered on account of the unsatisfactory condition of the present market. The output previously had been estimated at 253,000 tons from the Swedish mills and 316,000 from Norway.

Chemical Pulp

No radical changes have been recorded in the chemical pulp market since last week. There have been a number of good sized orders booked at the easier quotations which have prevailed of late. No. 2 strong unbleached imported sulphite has declined to from 2.50 to 2.70, ex dock, Atlantic ports, and domestic news sulphite is now selling at from 2.50 to 2.70.

Old Rope and Bagging

Domestic old rope is still in fair request and more interest is being displayed in imported old rope. Prices are practically unaltered from formerly quoted levels. Bagging sales during the past week were fairly numerous. Should consumption show any signs of expanding a very firm market would probably be experienced.

Rags

The position of the rag market is practically unchanged. There has been a limited demand from the mills for the higher grades of imported rags. Stocks in the hands of importers are said to be sufficient to take care of current requirements. Domestic rags are in fairly good request with prices unaltered.

Waste Paper

Mill demand for the lower grades of paper stock is improving slightly, although most of the orders booked lately have been for small quantities. The request for old kraft machine compressed bales is persistent. Stocks held by the paper mills are believed to be rather below normal and a more active market is anticipated in most quarters in the near future.

Twine

Steadiness continues to prevail in the twine market and the industry is in an excellent position for the season of the year. While prices of most of the grades are steady and unchanged an advance has been recorded of 2 cents on all the grades of cotton twine, due to the scarcity of cotton and the higher prices being demanded for that product.

Goes With Taggart-Oswego Paper and Bag Co.

GILMAN, Vt., May 9, 1927.—Fred Kruse, formerly paper-mill superintendent for the Gilman Paper Company, has recently accepted greater responsibilities with the Taggart-Oswego Paper and Bag Company, Inc., of Oswego, N. Y.

Mr. Kruse came to Gilman, as superintendent, six years ago from Mosinee, Wis., where he had been employed by the Wausau Sulphate Fibre Company.

On April 30, the day before his departure, he was the guest of honor at a banquet arranged by the employees, who, in token of the high esteem in which they held him, presented him with a beautiful gold watch, suitably engraved, also a fine leather traveling bag and suitcase.

He took up his new duties May 2. He has the supervision of the erection of a new paper mill for the Taggart Company, on Lake Ontario at Oswego. When completed and in operation he will be its manager, it is said. Kraft paper is to be manufactured. This will be converted into cement sacks in a big factory being erected near the paper mill site.

Mr. Kruse's family is expected to follow him in the very near future.

MacSimBar Paper Co. Completes Electrification

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., May 9, 1927.—The electrification of the MacSimBar Company's mill at Otsego is completed. Turbines have supplanted the old type of steam engine. The main power units are three Curtis turbines direct connected to as many General Electric generators. Each mechanical unit is driven by its own motor, thus doing away with a huge amount of belting and line shafting, always required under the old engine drive.

The campaign for ultimate electrification began some five years ago, with the erection of the new boiler plant. The fact that all improvements have been made without shutting down the mill or materially curtailing operations and production accounts for the time required.

ALPHA FIBRE
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for all fine papers
it takes the place of many grades of rags in paper making
CLEANER and more ECONOMICAL
BROWN COMPANY
founded 18[illegible]
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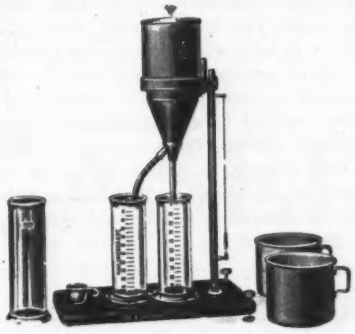

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Extra Strong Kraft

The Borregaard Company
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Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, May 11, 1927.

Most of the business transacted in the local chemical market during the past week was along routine lines. Contract shipments continued to move into consumption in a satisfactory manner. Contract prices remain unchanged and the schedule is being well maintained, in most instances. Judging by the number of inquiries being received by the manufacturers for future business, the outlook for the immediate future is favorable.

BLANC FIXE.—Normal conditions prevail in the blanc fixe market and the demand for both the pulp and the powder is fairly persistent. Prices are generally holding up very well. The pulp is still selling at $60 per ton, in bulk, and the powder is quoted at from 4 cents to 4¼ cents per pound, in barrels, at the works.

BLEACHING POWDER.—The bleaching powder market is in a sound position. Contract withdrawals have been heavy of late, especially to the South, while there is no undue accumulation of stocks. Prices are being maintained at former levels. Bleaching powder continues to sell at from $2 to $2.40 per 100 pounds, in large drums, at works, according to quantity.

CASEIN.—No radical changes were recorded in the casein market during the past week. Trading was rather light but prices remained unchanged. Imported casein is still quoted at from 18¾ cents to 19½ cents a pound. Domestic casein is offered at from 18½ cents to 19¼ cents a pound, all in bags, car lot quantities.

CAUSTIC SODA.—Contract withdrawals of caustic soda are proceeding along excellent lines and there has been little decrease in the volume moving into consumption. Prices are holding up to schedule in most instances. Caustic soda is quoted at from $3 to $3.10 per 100 pounds, in large drums, at works. Spot car lots are offered at $3.20 per 100 pounds.

CHINA CLAY.—Steadiness continues to prevail in the china clay market. The movement of supplies against regular contracts is moderately active. Prices remain unchanged. Domestic washed clay is selling at from $8 to $9 a ton, at mine, and pulverized at $10 a ton. Imported china clay is quoted at from $15 to $25 a ton, in bulk, ship side.

CHLORINE.—Demand for chlorine is excellent and the market is in a strong position. Supplies continue to move into consumption at a good pace. Prices remain unaltered. The quotation on chlorine is still 4 cents a pound, in tanks, or multi-unit cars, at works, on contract orders. The spot quotation is from 4¼ cents to 4½ cents a pound.

ROSIN.—The rosin market is still fluctuating from day to day. While the request for this product is fairly persistent, prices are slightly lower than a week ago. At the naval stores, the grades of gum rosin used in the paper mills are now offered at from $10 to $10.55 per 280 pounds, ex dock, in barrels. Wood rosin remains unchanged at $9.50 per 280 pounds, at southern shipping points.

SALT CAKE.—Consumption of salt cake is being maintained in excellent volume. Some active competition appears to have been developed for large sized orders and while it has been reported that concessions have been made in some quarters, prices are generally holding up to schedule. Salt cake is quoted at from $18 to $19 a ton, in bulk, at works. Chrome salt cake is selling at from $14 to $15 a ton, in bulk, at works.

SODA ASH.—Leading manufacturers of soda ash are making contract shipments in large volume. Production is proceeding on a good scale but no great accumulation of stock is developbeing, due to the heavy consumption being maintained. Prices are unchanged. Contract quotations of soda ash, in car lots, at works, are as follows; in bulk, $1.32½, and in barrels, $1.57½.

STARCH—Demand for starch is well up to seasonal average and the market has been steady for some time past. Stocks in hand are said to be ample for current requirements. Prices are holding up to schedule in a satisfactory manner. Special paper makers' starch is at present quoted at $3.07 per 100 pounds, in bags, and at $3.24 per 100 pounds, in barrels.

SULPHUR—No new developments have transpired in the sulphur market. Contract withdrawals are reported to be moving steadily and inquiries for future business are said to be arriving in fair volume. Prices are unaltered. Sulphur is still quoted at from $18 to $19 a ton, in bulk, at mine.

TALC—Trading in the talc market was normal during the past week. Supplies continued to move into consumption at a steady rate. Prices are being well maintained and shading is infrequent. Domestic talc is quoted at from $16 to $18 a ton, at eastern mines, and French talc is selling at from $18 to $22 a ton, ship side.

George Harvey Purchases Gardner Residences

DAYTON, Ohio, May 9, 1927.—The residences of Edward T. Gardner and Colin Gardner at Colonial Hill, Middletown, have been purchased by George Harvey and his son, Arthur Harvey, of the Paper City. The Gardners and the Harveys have been identified together in the manufacture of paper for a long number of years.

The occasion of the sale was the removal of the Gardners to this city where they are erecting attractive homes in Hills and Dales. The home of Edward Gardner is approaching completion. It is one of the finest structures in the Hills and Dales section, the district that was made famous by the late John H. Patterson, founder of the National Cash Register Company. Colin Gardner is making satisfactory progress with his improvement.

Edward and Colin are sons of the late Colin Gardner, founder of the Gardner-Harvey Paper Company. They recently donated a four acre tract at Colonial Hill, Middletown, to the Paper City for park purposes, in memory of their late father.

Mississippi Floods Curtail Lumber Operations

WASHINGTON, D. C., May 5, 1927.—The "lumber thermometer" of business is encouraging, according to the National Lumber Manufacturers Association weekly review of the industry, covering telegraphic reports from 307 of the larger commercial soft wood, and 141 of the chief hard wood, lumber mills of the country, for the week ended April 30. Despite the fact that 14 fewer soft wood mills reported this week, than for the preceding week, marked absolute increases in production—although high water closed some mills—and new business were noted, with shipments about the same. In comparison with the same period a year ago, however (and April is about the apex month of the lumber year), there are decreases in all three items. The 141 hard wood operations, when compared with reports from 158 mills for the week earlier, show considerable decrease in production, shipments somewhat larger, and a decided increase in new business. Compared with the corresponding week last year, there was a heavy decrease in production, due to the floods in the Mississippi Valley, with large increases in shipments and new business.

Pulp Market at Stockholm Quiet

WASHINGTON, D. C., May 10, 1927—The market for both chemical and mechanical pulp is quiet with downward trend observable in prices, according to a report to the Paper Division of hte Department of Commerce from American Consul General Osbirne, in Stockholm. The unsatisafctory situation in the mechanical groundwood market is alleged to be due to reports of overproduction of news print in Canada. Fears are also expressed in regard to an overproduction of sulphite pulp during this year. Although the mild weather prevailing has been favorable to shipping, exports have been small, showing slight declines in January and February in comparison with the corresponding months of last year.

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Seamless felts for fast running.
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BONDS	BID	OFFERED
Advance Bag & Paper, 7s 1943	101	103*
A. P. W Pulp & Power, 7s 1945	100	102
American Writing Paper, 6s 1947	79	82
Bastrap Pulp & Paper, 6½s 1940	100	103
British Columbia Pulp & Paper, 6s 1950	80	90*
Beaver Products Corp., 7½s 1942	106	109
Berkshire Hills Paper, 8s 1941	60	80
Brown Paper Co., 1st 5½s 1946	94	98
Bryant Paper Co., 6s 1942	98	102
Cape Breton Pulp & Paper, 6s 1932	101	103
Central Paper Serial 6, 6½s 1942	89	...
Champion Coated Paper, 6s 1926 to 1932	98	...
Champion Fibre, 8s 1930	100	...
Champion Paper Corp'n, 1st 6s 1945	94	97
Continental Paper Products, 6½s 1943	88	91½
Cornell Wood Prod., 7½s 1937	100	104*
Crown Willamette Paper, 6s 1951	97	101
Donnaconna Paper, 6s 1940	98	102
Dells Paper & Pulp Serial, 6s 1926-38	*95	...
Eastern Mfg. Co., 7s 1938	90	93
Eddy Paper, 7½s 1931	99	102
Escanaba Paper Serial, 6s 1926-39	90	95
Filer Fibre Serial, 7s 1926-39	90	95
Fort Orange Paper, 7s 1942	95	100*
Fox River Paper, 7s 1931	99	...
Gair Co. (The Robt.), 7s 1937	104	106
Gilbert Paper Co., 6½s 1926-29	89	...
Hammermill Paper, 6s 1939	100	103*
Itaska Paper & Prairie River Power, J+5½s 1926-38	94	96*
Itaska Paper 1st, 6s 1933-38	96	98*
Kalamazoo Veg. Parchment, 6s 1938	98	...
Marinette & Menominee, 7½s 1936	101	...
Mead Pulp & Paper, 5% Notes, 1927-37	90	95
Menasha Printing & Carton, 6½s 1939	99½	...
Mengel Company, 7s 1926 to 1934	100*	102
Monroe Paper Products, 7½s 1932	96	...
Munising Paper, 6s 1927-36	96	100
Nekoosa Edwards, 1st Ref. 6s 1928 to 1942	96	99*
Orono Pulp & Paper, 6s 1943	98	...
Orono Pulp & Paper, 5s 1941	94	...
Oswego Falls Corp., 6s 1941	98	100*
Oxford Paper, 6s 1947	100	...
Paepcke Paper Mills, 7s 1930	99	None
Parsons Pulp & Lumber, 7s 1928	97	...
Parker Young Co., 6½s 1944	95	99
Paterson Parchment Paper, 6s 1938	100½	102
Penobscot Chemical Fibre, 6s 1942	98	...
Poland Paper, 7s 1930	98	...
Port Alfred Pulp, 6½s 1943	*96	...
Queens City Paper, 7s 1932	95	100*
Richardson Co., 6s 1938	100	...
Spanish River Pulp & Paper, 8s 1941	106	110
Stevens & Thompson Paper, 6s 1942	91	94
St. Anne Paper, 6½s 1946	95½	98*
St. Croix Paper, 5s 1926-37	95	98*
St. Regis Paper Serial, 6½s 1926-35	98½	...
Tait Paper & Color Industries, 6s 1934	85	93
Taggart Bros. Co., 6s 1944	94	97
Ticonderoga Pulp & Paper, 5s 1930	95	98
Ticonderoga Pulp & Paper, 6s 1940	98½	100*
Warren (The S. D.) Company, 6s 1945	98	101
Wotab Paper, 6½s 1943	102	...
Westfield River Paper, 7s 1926-43	Wanted	...
Whitaker Paper, 7s 1942	103	106
Witmer-Parsons Pulp & Lbr. (Units)	63	70

STOCKS	BID	ASKED
Advance Bag & Paper, 8% Pfd.	97	100*
Am. Tissue Mills, 7% Pfd.	95	100
British Columbia P. & P., Pfd.	65	70
Brompton Pulp & Paper, 8% Pfd.	93	98*
Brown Corpn., 7% Pfd.	97	100*
Champion Fibre, 7% Pfd.	99	103*
Diem & Wing, 7% Cum. Pfd.	87	...
Donnaconna Paper, Com.	58	...
Donnaconna Paper, Pfd.	95	100
Eastern Mfg. Co., 1st Pfd.	34	37
Great Northern Paper (new)	60	70
Hammermill Paper, 7% Pfd.	105	110
Hinde & Dauch, Com.	135	...
Hinde & Dauch, Pfd.	100	...
Holyoke Card & Paper	150	None
Marathon Paper Mills, Com.	125	...
Midwest Box Co., Pfd. 8%	80	85
Midwest Box Co., Pfd. 6%	55	65
Louis De Jonge Co., 7% Pfd.	93	96
Oxford Papers, Com.	102	...
Oxford Paper Co., Pfd.	100	105
Penobscot Chemical Fibre, Com.	65	75*
Richardson Co., 7% Pfd.	104	...
Rubberoid Company	73	77
Seaman Container, Class B (par $1)	1	None Off.
Seaman Paper Co.	Wanted	None Off.
St. Croix Paper	150	170
St. Regis Paper Co., 7% Cum. Pfd.	97	100
Westfield River Paper Co., 1st Pfd.	Wanted	None Off.
West Virginia Pulp and Paper, Com.	58	63
West Virginia Pulp and Paper, Pfd.	97	102
Whittaker Paper, 7% Cum. Pfd.	97	103

* Nominal.

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.25	@ —
Rolls, transient	3.25	@ 3.50
Sheets	3.65	@ 3.85
Side Runs	3.00	@ 3.75
Book, Cased—		
S. & S. C.	6.50	@ 8.00
M. F.	6.25	@ 7.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream—		
White No. 1	.80	@ 1.00
Anti-Tarnish	1.10	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .85
Kraft	.90	@ 1.00
Manila	.75	@ .85
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	5.25	@ 5.50
Southern	4.75	@ 5.25
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
Screenings	3.00	@ 3.25
Card Middles	4.00	@ 5.00
Boards—per ton—		
News	42.50	@45.00
Straw	57.50	@60.00
Chip	40.00	@42.50
Binders' Boards	65.00	@70.00
Sgl. Mla. Ll. Chip.	52.50	@55.00
Wood Pulp	67.50	@72.50
Container	60.00	@65.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	32.00	@34.00
Dry	34.00	@36.00
(F. o. b. Mill)		
No. 1 Domestic	27.00	@30.00
Screenings	15.00	@20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
bleached	2.60	@ 2.85
Easy Bleaching	3.05	@ 3.25
No. 1 strong unbleached	2.60	@ 2.85
Mitscherlich unbleached	2.75	@ 3.40
No. 2 strong unbleached	2.50	@ 2.70
No. 1 Kraft	2.70	@ 2.90
Sulphate—		
Bleached	3.75	@ 4.00
(F. o. b. Pulp Mill)		
Sulphite (Domestic)—		
Bleached	3.40	@ 4.75
Easy Bleaching Sulphite	3.00	@ 3.25
News Sulphite	2.50	@ 2.70
Mitscherlich	3.25	@ 3.75
Kraft (Domestic)	2.70	@ 3.40
Soda Bleached	3.75	@ 4.00
Sulphate Screenings—		
Coarse	.75	@ .85
Refined	1.50	@ 1.85

Domestic Rags

New Rags

Prices to Mill f. o. b. N. Y.

Shirt Cuttings—		
New White, No. 1	11.75	@12.25
New White, No. 2	8.00	@ 8.50
Silesias No. 1	7.25	@ 7.75
New Unbleached	10.75	@11.25
Washables	4.25	@ 4.75
Fancy	5.50	@ 6.00
Blue Overall	7.25	@ 7.75
New Blue Prints	5.25	@ 5.50
New Soft Blacks	5.25	@ 5.75
Mixed Khaki Cuttings	4.50	@ 5.25
Pink Corset Cuttings	9.50	@10.00
O. D. Khaki Cuttings	5.25	@ 5.75
Men's Corduroy	3.75	@ 4.25
New Mixed Blacks	3.50	@ 3.75

Old Rags

White, No. 1—		
Repacked	5.75	@ 6.50
Miscellaneous	4.75	@ 5.25
White, No. 2—		
Repacked	3.25	@ 3.75
Miscellaneous	2.75	@ 3.00
St. Soiled, White	2.50	@ 2.75
Thirds and Blues—		
Repacked	2.25	@ 2.50
Miscellaneous	1.75	@ 2.00
Black Stockings	3.25	@ 3.75
Roofing Rags—		
Cloth Strippings	1.65	@ 1.75
No. 1	1.65	@ 1.75
No. 2	1.35	@ 1.45
No. 3	1.25	@ 1.35
No. 4	1.25	@ 1.35
No. 5A	.95	@ 1.05

Foreign Rags

New Light Silesias	7.00	@ 7.50
Light Flannelettes	7.75	@ 8.50
Unbleached Cottons	10.00	@11.00
New White Cuttings	10.50	@11.50
New Light Oxfords	7.00	@ 7.50
New Light Prints	5.50	@ 6.50
New Mixed Cuttings	3.00	@ 3.50
New Dark Cuttings	2.75	@ 3.25
No. 1 White Linens	7.00	@ 7.75
No. 2 White Linens	5.25	@ 6.00
No. 3 White Linens	4.00	@ 4.50
No. 4 White Linens	3.00	@ 3.50
Old Extra Light Prints	2.75	@ 3.25
Ord. Light Prints	2.25	@ 2.50
Med Light Prints	1.85	@ 2.10
Dutch Blue Cottons	2.25	@ 2.50
German Blue Linens	2.50	@ 2.75
German Blue Cottons	2.00	@ 2.25
Checks and Blues	1.75	@ 2.00
Lindsay Garments	1.75	@ 1.85
Dark Cottons	1.60	@ 1.65
Shoppery	1.50	@ 1.60
French Blues	2.25	@ 2.50

Old Rope and Bagging

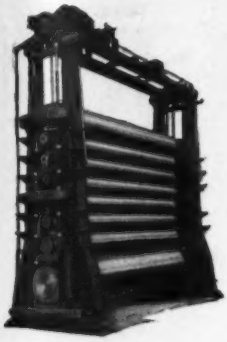
Prices to Mill f. o. b. N. Y.

Gunny No. 1—		
Foreign	1.80	@ 1.90
Domestic	1.90	@ 2.00
Wool Tares, light	1.60	@ 1.70
Wool Tares, heavy	1.65	@ 1.75
Bright Bagging	1.60	@ 1.70
Small Mixed Rope	1.50	@ 1.65
Manila Rope—		
Foreign	3.75	@ 4.00
New Burlap Cut	3.00	@ 3.25
Hessian Jute Threads—		
Foreign	3.50	@ 4.00
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.40	@ 3.60
Hard, White, No. 2	3.00	@ 3.15
Soft, White, No. 1	2.80	@ 3.00
Flat Stock—		
Stitchless	1.25	@ 1.35
Overissue Mag.	1.25	@ 1.35
Solid Flat Book	1.15	@ 1.25
Crumpled No. 1	.80	@ .90
Solid Book Ledger	1.90	@ 2.10
Ledger Stock	1.40	@ 1.50
New B. B. Chips	.45	@ .55
Manilas—		
New Env. Cut	2.40	@ 2.60
New Cuttings	1.60	@ 1.85
Extra No. 1 old	1.25	@ 1.35
Print	.65	@ .75
Container Board	.50	@ .55
Bogus Wrapper	.70	@ .80
Old Kraft Machine Compressed bales	2.00	@ 2.10
News—		
No. 1 White News	1.50	@ 1.60
Strictly Overisszue	.65	@ .75
Strictly Folded	.47½	@ .52½
No. 1 Mixed Paper	.37½	@ .42
Common Paper	.25	@ .30



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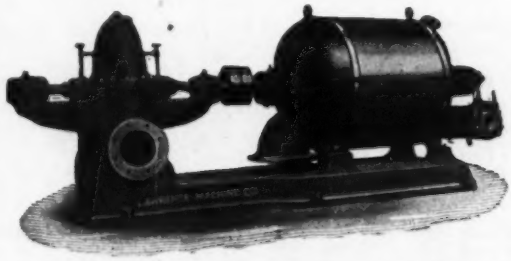

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A. P. W. Pulp & Power Co. 7s, 1945	@101
British Columbia Pulp & Paper Co. 6s	@ 85
British Columbia Pulp & Paper Co. Pfd.	@ 60
Bryant Paper Co. 6s, 1942	@100½
Crown Willamette Paper Co. 6s, 1951	@100
Donnacona Paper Co. 6s, 1940	@100½
Escanaba Paper Co. 6s, 1939	@ 93½
Eddy Paper Company 7½s, 1931	@102
Filer Fibre Co. 7s	@ 95
Hoberg Paper & Fibre Co. 7s, 1937	@ 94½
Quebec Pulp & Paper Co. Pfd.	@ow
St. Regis Paper Co. 6s, 1931	@100
Suncrest Lumber Company 6s	@ 32
Ticonderoga Pulp & Paper Co. 6s, 1940	@ 98½
Whitaker Paper Co. 7s, 1942	@106

WE WILL SELL

Champion Paper Co. 6s, 1945	@ 98
Eastern Manufacturing Co. 7s, 1938	@ 91½
Great Northern Paper Co.	@ 66
Mead Pulp & Paper Co. 5s, 1937	@ 92½
Whitaker Paper Co. 7s, 1942	@107

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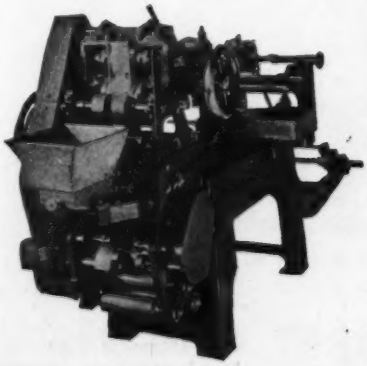

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Special Machinery Designed and Built

A. L. PARRISH,
1702 Robinson St., South Bend, Ind.

Twines

F. o. b. Mill

Cotton—			
No. 1	.28	@	.29
No. 2	.26	@	.27
No. 3	.24	@	.25
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.21	@	.23
No. 2	.20	@	.22
Tube Rope—			
4-ply and larger	.18	@	.19
Fine Tube Yarn—			
5-ply and larger	.23	@	.27
4-ply	.24	@	.28
3-ply	.26	@	.30
Unfinished India—			
Basis	.16	@	.17
Paper Makers Twine			
Balls	.13	@	.15
Box Twine, 2-3 ply	.17	@	.19
Jute Rope	.21	@	.23
Ameri. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.18	@	.20
No. 2 Basis	.16	@	.18
Sisal Lath Yarn—			
No. 1	.16	@	.18
No. 2	.14	@	.16
Manila Rope	.24	@	.26

CHICAGO

All Rag Bond	.35	@	.41
No. 1 Rag Bond	.25	@	.35
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¼	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07¼	@	.10
News—Roll, mill	.03½	@	.04¼
News—Sheets, mill	.03¾	@	.04¾
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.05¾	@	.06¼
Southern Kraft	.04½	@	.05
No. 2 Kraft	.05	@	.05¼
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue—			
24x36 Sheet	.07	@	.07¾
White Tissue—			
20x30 sheet	.07¼	@	.07½
Boards, per ton— (Delivered Central Territory—			
Plain Chip	45.00	@	47.50
Solid News	47.50	@	—
Manila Line Chip	55.00	@	57.50
Container Lined— (Delivered Central Territory)—			
85 Test	65.00	@	70.00
100 Test	70.00	@	75.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.60	@	3.70
White Env. Cuttings	3.60	@	3.70
No. 1 Soft Shavings	2.90	@	3.00
No. 1 Mixed	1.35	@	1.45
No. 2 Mixed	1.05	@	1.10
Ledger & Writings	1.45	@	1.60
Solid Books	1.20	@	1.30
Blanks	1.65	@	1.75
Krafts	1.80	@	1.90
New Kraft Cuts	2.25	@	2.35
Manila Envelope Cuttings	2.00	@	2.10
Ex. No. 1 Manila	1.55	@	1.65
Print Manila	.80	@	.90
Folded News (overissue)	.65	@	.75
Old Newspapers—			
No. 1	.50	@	.55
No. 2	.45	@	.50
Mixed Papers—			
No. 1	.55	@	.60
Roofing Stocks— F. o. b. Chicago, net cash			
No. 1	30.00	@	—
No. 2.	28.00	@	—

BOSTON

Paper

F. o. b. Mill

Ledgers—			
Sulphite	.07½	@	.15
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
News	.03½	@	.04
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¼	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.05¾	@	.06½
No. 2 Kraft	.05	@	.05¾
Common Bogus	.02¼	@	.02½
Delivered New England points			
Straw Board, rolls .009			57.50
Straw Board in Sheets, basis 35s to 70s			53.50
Filled News Board			47.50
Chip Board			45.00
Single Manila Pulp lined board	55.00	@	60.00
Single White, patent coated board bender	75.00	@	80.00
Wood Pulp Board	80.00	@	85.00
Binder Boards (F. o. b. Mills)	70.00	@	75.00
Tarred Felts— Regular, carload lots	65.00	@	—

Old Papers

F. o. b. Boston

Shavings—			
No. 1 Hard White	3.25	@	3.75
White Blank News	1.40	@	1.50
Manila Env. Cuttings	2.00	@	2.25
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	.03	@	.03¼
No. 1 Soft White	2.75	@	3.00
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.50	@	—
No. 1 Books, Heavy	1.10	@	1.20
No. 1 Books, Light	—	@	1.15
No. 1 New Manila	2.25	@	2.50
No. 1 Old Manila	1.40	@	1.60
Print Manila	.70	@	.80
Old Kraft	1.65	@	1.80
Overissue News	.55	@	.60
Old Newspapers	.45	@	.50
No. 1 Mixed Paper	.45	@	.50
Box Board, Chip	.45	@	.60

Bagging

Price f. o. b. Boston

Gunny No. 1—			
Foreign	1.75	@	2.00
Domestic	1.75	@	1.87½
Manila Rope—			
Foreign	3.75	@	3.87½
Domestic	4.00	@	4.50
Mixed Rope	1.05	@	1.15
Scrap burlaps	1.35	@	—
Wool Tares, heavy	1.50	@	1.65
Mixed Strings	1.00	@	1.10
New Burlap Cutting	2.15	@	2.25

Domestic Rags (New)

Price f. o. b. Boston

Shirt Cuttings—			
New White No. 1	.11¼	@	.11½
Silesias, No. 1	.07	@	.07¾
New Unbleached	.10	@	.10¼
Fancy	.05¾	@	.06
Washable	.04½	@	—
Cottons—According to Grades—Blue—			
Blue Overalls	—	@	.07
New Black, soft	.04	@	.04¼
Khaki Cuttings	.05	@	.05½
Corduroy	.03	@	.03½
New Canvas	.09	@	.10

Domestic Rags (Old)

Price f. o. b. Boston

White No. 1—			
Repacked	5.00	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04¾	@	.05
Miscellaneous	.03¾	@	.04
Thirds and Blues—			
Repacked	2.12½	@	2.37½
Miscellaneous	1.75	@	1.90
Roofing Stock—			
No. 1	1.37½	@	—
No. 2	1.25	@	—
No. 3	1.12½	@	—
No. 4	1.00	@	—

PHILADELPHIA

Paper

F. o. b. Mill

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	16	@	.25
Fine, No. 3	.12	@	.20
Book, M. F.	.06¾	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila	.09½	@	—
Manila Sul., No. 1	.04½	@	.06
Manila, No. 2	.04	@	.04½
No. 2 Kraft	.05	@	.05¼
No. 1 Kraft	.06	@	.06¾
Common Bogus	.02¾	@	—
Straw Board	60.00	@	65.00
News Board	45.00	@	50.00
Chip Board	40.00	@	42.00
Wood Pulp Board	4.50	@	5.00
(Carload Lots)			
Binder Boards—			
No. 1, per ton	85.00	@	90.00
No. 2, per ton	70.00	@	75.00
Carload lots	60.00	@	65.00
Tarred Felts—			
Regular	66.00	@	58.00
Slaters	70.00	@	72.00
Best Tarred, 1-ply (per roll)	1.85	@	1.95
Best Tarred, 2-ply (per roll)	1.55	@	1.70
Best Tarred, 3-ply	2.10	@	2.15
No. 1 Mixed Paper	.65	@	.70

Domestic Rags (New)

Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.11¼	@	.12
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07½	@	.08
Black Silesia, soft)	.05	@	.05¾
New Unbleached	.10¾	@	.11
Washable	.04	@	.04½
Fancy	.05¾	@	.06
Cottons—according to grades—			
Blue Overall	.07½	@	.08
New Blue	.03½	@	.04
New Black Soft	.05½	@	.06
New Light Seconds	.03	@	.03½
Khaki Cuttings	.04½	@	.05
Corduroy	.03	@	.03¾
New Canvas	.08	@	.09
New Black Mixed	.05	@	.05½

Bagging

F. o. b. Phila

Gunny, No. 1—			
Foreign	1.75	@	2.00
Domestic	1.75	@	2.00
Manila Rope	4.25	@	4.50
Sisal Rope	1.25	@	2.00
Mixed Rope	1.25	@	1.50
Scrap Burlaps	1.75	@	2.00
Wool Tares, heavy	2.00	@	2.25
Mixed Strings	1.50	@	1.75
No. 1, New Light Burlap	2.25	@	2.50
New Burlap Cuttings	2.25	@	2.50

Old Papers

F. o. b. Phila.

Shavings—			
No. 1 Hard White	3.50	@	3.60
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	2.80	@	2.90
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	1.90	@	2.00
Writing Paper	1.65	@	1.75
No. 1 Books, heavy	1.15	@	1.20
No. 2 Books, light	.80	@	.85
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	1.00	@	1.10
Container Manila	.75	@	.80
Old Kraft	2.00	@	2.20
Common Paper	.40	@	.50
No. 1 Mixed Paper	.50	@	.60
Straw Board, Chip	.60	@	.65
Binders Board, Chip	.60	@	.65
Overissue News	.75	@	.80
Old Newspaper	.50	@	.60

Domestic Rags (Old)

White, No. 1—			
Repacked	5.00	@	5.25
Miscellaneous	4.75	@	5.00
White, No. 2—			
Repacked	.03½	@	.04
Miscellaneous	.02	@	.02¼
Thirds and Blues—			
Repacked	2.50	@	2.75
Miscellaneous	1.75	@	2.00
Black Stockings	3.25	@	3.50
Roofing Stock—			
No. 1	1.55	@	1.65
No. 2	1.40	@	1.50
No. 3	1.25	@	1.35
No. 4	1.20	@	1.30
No. 5A	.90	@	1.00
B	.80	@	.90
C.	.80	@	.90

TORONTO

Paper

F. o. b. Mill

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¾	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
News f. o. b. Mills—			
Rolls (Carloads)	3.25	@	—
Sheet (carload)	3.75	@	—
Sheets (2 tons or over)	4.00	@	—
Book—			
No. 1 M. F. (carLoads)	7.75	@	—
No. 2 M. F. (carloads)	7.50	@	—
No. 3 M. F. (carloads)	7.25	@	—
No. 1 S. C. (carloads)	8.25	@	—
No. 2 S. C. (carloads)	8.00	@	—
No. 3 S. C. (carloads)	7.75	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.85	@	—
White Rap	5.25	@	—
"B" Manila	5.65	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.20	@	—
M. G.	7.35	@	—

Pulp

(F. o. b. Mill)

Ground wood	30.00	@	31.00
Sulphite easy bleaching	60.00	@	65.00
Sulphite news grade	55.00	@	60.00
Sulphite, bleached	78.00	@	80.00
Sulphate	65.00	@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.50	@	—
Soft White Book Shavings	3.00	@	—
White Blk, News	1.40	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.40	@	—
Solid Ledgers	1.40	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.47½	@	.52½
No. 1 Mixed Paper	.37½	@	.42

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.12	@	.12½
Fancy Shirt Cuttings	.06	@	.06½